

The Asset-Based Approach to Business Valuation

Part one of a three-part article

INTRODUCTION

Valuation analysts (analysts) are regularly engaged to value businesses, business ownership interests, and closely held debt and equity instruments for a variety of litigation-related reasons. These reasons include contract claims, tort claims, family law matters, taxation disputes, and other reasons. Common contract-related claims involve a breach of a joint venture agreement, an acquisition agreement, a buy/sell agreement, an individual or corporate noncompetition agreement, a confidentiality or nondisclosure agreement, and a variety of other contract-related damages analyses. Common tort claims include breach of fiduciary duty issues, shareholder oppression matters, dissenting shareholder appraisal rights claims, lender liability matters, infringement claims, and others. Business valuation issues are common in family law matters whenever the marital estate includes an ownership interest in a family-owned business or a professional practice. Business and security valuation issues also arise in gift tax, estate tax, generation-skipping transfer tax, income tax, and property tax planning, compliance, and controversy matters. And, the valuation of closely held business interests is often an issue in various other types of litigation ranging from bankruptcy to antitrust claims to condemnation and eminent domain to accounting fraud and misrepresentation and others.

In these litigation-related business valuations, the analyst typically considers all generally accepted business valuation approaches and methods, including income approach, market approach, and asset-based approach valuation methods. Then, the analyst typically ignores the asset-based approach.

There are many instances when the asset-based approach is particularly relevant to litigation-related valuations. These reasons include: when the income approach and market approach methods are not reliable (for whatever reason), when the judicial conclusion may result in a sale of the business and the proposed deal structure (i.e., an asset sale versus a stock sale) will impact the entity value, when the finder of fact (or other parties) wants to understand why the subject business is claimed to be worth a multiple of (or a fraction of) its recorded net book value, and when the analyst simply wants to present a confirmatory valuation analysis and conclusion to the income and/or market approach value indications. This discussion describes and illustrates the application of the asset-based approach in a litigation-related valuation analysis.

ASSET-BASED APPROACH DISCUSSION OUTLINE

Although less commonly applied than the income approach or the market approach, the asset-based approach is a generally accepted business valuation approach. The asset-based approach is described in most comprehensive business valuation textbooks. In addition, consideration of the asset-based approach is required by most authoritative business valuation professional standards. For example, professional standards such as the American Institute of Certified Public Accountants (AICPA) "Statements on Standards for Valuation Services" (SSVS) and the Uniform Standards of Professional Appraisal Practice (USPAP) require the analyst to consider the application of the asset-based approach (in addition to other business valuation approaches). That is to say, such professional standards require



ROBERT F. REILLY, CPA

Willamette Management Associates
Chicago, IL
rfreilly@willamette.com

the consideration of—but not necessarily the application of—the asset-based approach. In practice, however, many analysts immediately reject the use of asset-based approach methods in a litigation-related business valuation as being too difficult, too time consuming, too client disruptive, or simply (and without adequate explanation) not applicable to the subject company.

In truth, many analysts do not seriously consider using the asset-based approach in the typical litigation-related business valuation. This is because these analysts are not sufficiently familiar with the generally accepted methods and procedures within this business valuation approach. In addition, many analysts labor under misconceptions about when—and when not—to apply this valuation approach. And, many ana-

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The asset-based approach is based on the following relationship:

- the value of total company assets (both tangible and intangible)
- minus
- the value of total company liabilities (both recorded and contingent)
- equals
- the value of total company equity

lysts also hold misconceptions about interpreting the quantitative results of the asset-based valuation approach. Hopefully, this discussion will correct many of the common misconceptions about this business valuation approach—particularly with regard to the valuation of companies within a litigation environment.

As will be discussed below, the proper application of this business valuation approach requires a slightly different set of skills than does the application of the income approach or the market approach. Not all analysts have the experience or expertise to perform a comprehensive asset-based approach business valuation analysis. In addition, it is true that the completion of the asset-based approach often requires more analyst time than other business valuation approaches. That additional analyst time typically translates into additional professional fees charged to the litigation engagement client. Therefore, litigation engagement clients often discourage the use of the asset-based approach when they come to learn of both the additional elapsed time and the additional costs associated with this particular valuation analysis. And, the successful performance of this valuation approach often requires more data from—and more involvement by—the subject company executives. Again, when these additional commitments are understood, many clients may discourage the use of the asset-based approach.

Finally, in the typical controversy-related business valuation assignment, the analyst may not be granted sufficient access to the company facilities or to the company executives in order to practically implement this valuation approach. And, particularly in a retrospective controversy-related assignment, the company data that the analyst needs—and the company personnel that the analyst needs access to—are simply no longer available. In many of these litigation-related instances, it may simply be impractical for the analyst to perform some asset-

based approach valuation methods.

This discussion includes three sections related to the application of the asset-based business valuation approach within a controversy environment. This first section describes the theory of—and the general application of—the asset-based approach. The second section describes and illustrates a common asset-based approach valuation method—the asset accumulation (AA) method. The AA method involves the identification and valuation of each individual category of the subject company assets (both tangible and intangible). The final section describes and illustrates the adjusted net asset value (ANAV) method. The ANAV method involves a single aggregate relocation of all of the subject company’s total collective assets.

THEORY OF THE ASSET-BASED APPROACH

The asset-based approach is sometimes called the asset approach to business valuation. Either term is generally accepted among valuation analysts and in the valuation literature. The asset-based approach encompasses a set of methods that value the subject company by reference to its balance sheet. In contrast, income approach and market approach valuation methods focus on the subject company’s income statement and/or cash flow statement.

One of the very first procedures in any business valuation is to define the business ownership interest subject to valuation. That is, the assignment should specify whether the valuation intended to conclude a defined value for the subject company:

1. total assets,
2. total long-term interest-bearing debt and total owners’ equity,
3. total owners’ equity, or
4. one particular class of owners’ equity.

Each of the above descriptions is a valid objective of a business valuation. And, each conclusion is often referred to as a “business value.” Yet, obviously,

each of these business value conclusions will be quantitatively different for the same company. And, each of these business value conclusions will be perfectly appropriate in the right circumstance—usually based on the actual or hypothetical transaction that is being analyzed.

Knowing the subject company’s total asset value is necessary in an acquisition structured as an asset purchase (instead of as a stock purchase). The company’s total invested value (TIC)—often called the market value of invested capital (or MVIC)—is the value of all long-term debt plus all classes of owners’ equity. Knowing the value of the TIC is important in a deal structure where the buyer will both acquire all the company’s equity and assume all of the company’s debt. Knowing the value of the total owners’ equity is important when only the company’s equity securities (say all common stock and all preferred stock) are at issue in the transaction. And, knowing the value of one particular class of equity only (say only the company’s common stock) is important when only that class of security is the subject of the proposed transaction.

In any event, the asset-based approach is based on the premise that value of the subject company equity is equal to:

$$\begin{aligned} & \text{the value of the company's} \\ & \text{total assets minus the value} \\ & \text{of the company's total liabilities} \end{aligned}$$

If properly applied, this valuation formula can be used to indicate the value of any of the valuation objectives listed above. Of course, there are two particularly important words in the above valuation formula: (1) value and (2) total.

The asset-based approach is based on the *value* of (not the recorded balance of) the subject company’s assets and liabilities. The standard of value in the analysis has to be defined. And, the valuation date of the analysis has to be defined. The standard of value is determined by the assignment.

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Common standards of value for litigation-related purposes include fair market value and fair value. Other common standards of value include investment value, owner value, use value, user value, and others. Whatever the assignment-specific standard of value is, the value conclusion is likely going to be different from the recorded account balances presented on the subject company's balance sheet. Those balance sheet recorded account balances are probably presented in compliance with generally accepted accounting principles (GAAP), which typically include a combination of historical cost-based measures and GAAP-based fair value measures.

The asset-based approach is also based on the *total* of all of the subject company's assets and liabilities. GAAP-based balance sheets typically exclude major categories of company assets and company liabilities. For example, GAAP-based balance sheets do not record most internally created intangible assets. In the information age, such intangible asset categories often represent the major sources of value for any subject business entity. This statement is obvious for technology-related entities. However, this statement is also true for most companies. Under U.S. GAAP, the values of an entity's internally created employee relationships, supplier relationships, customer relationships, and goodwill are not recorded on the entity's balance sheet. Likewise, the values of the entity's contingent liabilities are not recorded under U.S. GAAP. Therefore, employee lawsuits, environmental claims, unresolved income tax audits, and other claims against the company are typically not recorded on the entity's balance sheet.

Unlike the subject company's GAAP-based balance sheet, the asset-based approach value-based balance sheet recognizes the current value of (1) all of the company's assets (tangible and intangible) and (2) all of the company's liabilities (recorded and contingent).

To conclude the assignment-

defined value for the company's assets and liabilities— whether individually or collectively— the analyst will apply generally accepted asset (and liability) valuation methods. These valuation methods are categorized into the three categories of generally accepted property valuation approaches: the income approach, the market approach, and the cost approach.

WHEN TO APPLY THE ASSET-BASED APPROACH

First, it is noteworthy that, under most professional business valuation standards, the analyst should consider applying all generally accepted valuation approaches. Accordingly, the relevant analyst question is not: When should I perform the asset-based approach? Rather, the relevant analyst question should be: When can I not perform the asset-based approach? That is, as a general principle, the asset-based approach should at least be considered (if not completed) in every litigation-related business valuation assignment. The reasons why an asset-based approach analysis is not performed should be described in the business valuation report. And, the reasons should be substantive and not perfunctory. That is, a mention that "the subject company is an operating company" may not be a sufficient explanation.

Second, the analyst's selection of the applicable valuation approach is a function of four primary factors:

1. the type of subject company
2. the type of subject business interest
3. the type of subject transaction
4. the availability of necessary data

Many analysts believe that the asset-based approach is only applicable to so-called asset-intensive companies. This conclusion is technically correct. However, this conclusion ignores the reality that virtually every company is an asset-intensive company. The fact is that the asset-based approach is applicable to tangible-asset-intensive companies. And, the fact is that the asset-based approach is also applicable to

intangible-asset-intensive companies. Virtually all companies are either tangible-asset-intensive or intangible-asset-intensive (or a combination of both asset types). Therefore, at least for analysts who are qualified to perform intangible asset valuations, the asset-based approach is applicable to most types of companies.

Many analysts also believe that the asset-based approach is only applicable to so-called asset holding companies. In fact, this valuation approach is applicable to any company that owns assets. So, the asset-based approach may apply in the valuation of asset holding companies, and it may apply in the valuation of asset operating companies. And, just about every company falls into one (or both) of these two descriptive categories. Therefore, at least for analysts who are qualified to perform asset valuations on a going-concern premise of value basis, the asset-based approach is applicable to most types of companies.

The type of valuation subject influences the selection of the valuation approach. This is because the asset-based approach (without adjustment) concludes a controlling, marketable ownership interest level of value. Therefore, this valuation approach is particularly applicable to the valuation of an overall business enterprise—a valuation objective that often relates to a business purchase or sale transaction. Alternatively, this valuation approach may not be as applicable (unless adjustments are made) to the valuation of a noncontrolling, non-marketable block of nonvoting common stock—a valuation objective that often relates to a tax planning, compliance, or controversy assignment.

As the previous paragraph implies, the type of the subject transaction (or the type of the subject assignment) influences the selection of the valuation approach. An overall business valuation is well served by the asset-based valuation approach. That is, this approach is particularly applicable to a company merger and acquisition.
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sition analysis, a stock exchange ratio analysis, a fairness opinion, a solvency opinion, or any other transaction involving the overall business enterprise.

In particular, this valuation approach is particularly applicable to the analysis of a company acquisition that is structured as an asset purchase transaction (as compared to a stock purchase transaction). This is because the deal price is directly related to the value of the subject company tangible and intangible assets. The asset-based approach is also applicable to any transaction that is structured as a taxable transaction (as compared to a non-taxable transaction tax structure). This is because the deal price will depend on the prospective depreciation and amortization expense and income tax rates associated with the revalued tax basis of the transferred assets. This valuation approach is particularly applicable to analyses performed for asset-based secured financing purposes. In such an instance, different creditors could have different claims on different company asset classes. And, this valuation is particularly applicable for various taxation-related assignments, such as a financially troubled company conversion from C corporation tax status to S corporation tax status.

Finally, the quantity and quality of available data affects the analyst's selection of a business valuation approach. For example, the fact that there are no sufficiently comparable publicly traded companies in the subject industry sector affects the analyst's ability to use the market approach guideline publicly traded company (GPTC) method. Likewise, the fact that there is no prospective financial information (PFI) in existence at the subject company affects the analyst's ability to use the income approach discounted cash flow (DCF) method. So, if the analyst has no access to company asset-specific information (e.g., no available information regarding the company's individual tangible assets or intangible assets), this fact will affect the analyst's ability to use the asset-based approach

AA method.

Likewise, if the analyst is working for the outside party in a transaction or in a litigation proceeding, this fact may affect the analyst's ability to obtain sufficient data (or sufficient asset access) to use the asset accumulation method. And, if the valuation is retrospective—and all of the company's tangible and intangible assets have materially changed since the valuation date—this fact may affect the analyst's ability to use the asset accumulation method.

Nonetheless, the above-mentioned data limitations primarily relate to the AA method. Asset-specific data limitations, asset access limitations, and retrospective valuation dates are less important in the application of the ANAV method (than they are to the application of the AA method). Therefore, these issues may affect the analyst's selection of which asset-based approach valuation method to use. But, these issues do not necessarily eliminate the application of all asset-based approach considerations.

Finally, the most relevant reasons why analysts do not apply the asset-based valuation approach in litigation-related engagements are: (1) there are additional costs and time requirements associated with this approach and (2) many audiences for valuations (including company boards of directors, legal counsel, and judicial finders of fact) are not particularly familiar with asset-based valuation analyses.

THE ASSET-BASED APPROACH IS NOT THE COST APPROACH

The asset-based approach is a generally accepted business valuation approach. The cost approach is a generally accepted property valuation approach. This is a very important distinction. The objective of the asset-based approach is to estimate a business equity (or total net asset) value. The objective of the cost approach is to estimate the value of an individual tangible asset or intangible asset.

In the asset-based approach, the

individual asset categories may be valued using the cost approach—or the market approach—or the income approach. In the typical asset-based approach analysis, the analyst may expect that all of the property valuation approaches will be used. Some asset categories will be valued by reference to cost approach methods. Some asset categories will be valued by reference to market approach methods. And, some asset categories will be valued by reference to income approach methods.

In fact, as a general rule, at least one subject company asset category will be valued by reference to an income approach property valuation method, typically either:

1. a capitalized excess earnings method (CEEM) or
2. a multiperiod excess earnings method (MEEM).

In the typical asset-based approach analysis, these income approach property valuation methods are used to conclude whether:

1. there is intangible value in the nature of goodwill for the subject company (i.e., a positive CEEM indication) or
2. there is an economic obsolescence adjustment that needs to be made to the cost approach tangible and intangible asset values (i.e., a negative CEEM indication).

There are several generally accepted cost approach valuation methods. The following cost approach methods can be used to value many subject company tangible asset categories and intangible asset categories:

1. Reproduction cost new less depreciation (RPCNLD) method
2. Replacement cost new less depreciation (RCNLD) method
3. Trended historical cost less depreciation method (THCLD)

However, these cost approach methods are not particularly applicable to all tangible and intangible asset cate-

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gories. Many tangible and intangible assets are more efficiently valued by reference to the market approach. And, in particular, many intangible assets are more efficiently valued by reference to the income approach. For example, in a business valuation, it is possible to value a company's goodwill by reference to the cost approach (e.g., the capitalization of opportunity cost during a total asset recreation period). However, in a business valuation, it is more common for analysts to value a company's goodwill using the CEEM of the income approach.

In summary, the cost approach can be used to value various categories of company tangible assets (e.g., machinery and equipment) or intangible assets (e.g., a trained and assembled workforce). However, it is practically impossible to value all of the assets of a going-concern company by using the cost approach exclusively. Such an analysis may ignore the income generation capacity of the subject company and may not appropriately encompass either (1) the company's goodwill (positive capitalized excess earnings) or (2) the company's economic obsolescence (negative capitalized excess earnings).

The asset-based business valuation approach typically incorporates cost approach property valuation methods to value certain tangible and intangible asset categories. However, the asset-based approach also incorporates other property valuation approaches to value certain other tangible and intangible asset categories of the subject company. Analysts who confuse either the nomenclature or the methodology of the cost approach versus the asset-based approach may not understand either valuation approach.

THE ASSET-BASED APPROACH IS NOT LIMITED TO ASSET HOLDING COMPANIES

The premise of the asset-based approach is that the value of the subject company assets minus the value of the subject company liabilities equals



the value of the subject company equity. This formula doesn't only work for the valuation of holding companies that passively own investment assets. This formula also works for the valuation of operating companies that both own and operate tangible and intangible property.

In practice, the asset-based approach works the same for investment holding companies as it does for operating companies. The primary differences in the two types of companies are the categories of assets included in the analysis. For example, the illustrative categories of assets and liabilities included in an investment holding company valuation analysis may include the following:

Alpha Investment Holding Company Illustrative Assets and Liabilities

Assets

Cash and money market instruments
Publicly traded stocks and bonds
Oil and gas exploration/production interests
Land and land improvements
Options and other derivative securities

Less:

Liabilities

Accounts payable and taxes payable
Mortgages payable
Notes payable

Equals:

Net asset value

An alternative example applies the same asset-based approach valuation formula to an operating company. Illustrative operating company categories of assets and liabilities may include the following:

Beta Operating Company

Illustrative Assets and Liabilities

Assets

Cash, receivables, and inventory
Land and buildings
Machinery and equipment
Trademarks and trade names
Trained and assembled workforce
Current customer (contract) relationships
Goodwill

Less:

Liabilities

Accounts payable and accrued expenses
Taxes payable
Bonds, notes, and mortgages payable

Equals:

Net asset value

All assets can be valued using generally accepted property valuation approaches and methods. This statement is true for tangible assets and intangible assets. And, this statement is true for investment assets and operating assets. Often when an analyst asserts that the asset-based approach is only applicable to investment holding companies, the real assertion is: I only know how to apply the asset-based approach to investment holding com-

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panies; I really don't know how to value operating tangible and intangible assets. The more correct analyst assertion may be: The asset-based approach is ideally suited to the valuation of investment holding companies; however, the asset-based approach is also applicable to the valuation of operating companies.

ASSET-BASED APPROACH DOES NOT CONCLUDE A LIQUIDATION VALUE

Many analysts believe that the application of the asset-based approach concludes a liquidation value (that is, not a going-concern value) for the subject company. These analysts maintain this (erroneous) belief whether the asset-based approach is applied to an investment holding company or to an operating entity. These analysts (correctly) believe that the asset-based approach is based on a defined value for the subject assets. And, the defined value (whatever standard of value applies) is usually based on the expected sales price of the subject asset between some defined parties. These analysts (incorrectly) assume that any sale of any asset is a liquidation transaction that yields a liquidation value. This analyst belief is simply misplaced.

Let's use the fair market value (FMV) standard of value as an example. An FMV transaction occurs between a hypothetical willing buyer and a hypothetical willing seller. Presumably, the asset buyer is always willing to enter into the subject FMV transactions. If the asset seller decides to sell the subject asset by the end of the week (say, because a loan payment is coming due), that transaction may result in a liquidation value. Even if the seller exposes the subject asset for sale during a normal market exposure period—but the buyer will not continue to operate the asset in a going-concern business—that asset sale transaction may result in a liquidation value.

Now, let's extend the example to assume that the seller has been operating the subject asset as part of a going-concern company. The seller exposes

the asset for sale during a normal market exposure period. The buyer acquires the subject asset and then uses the acquired asset as part of the buyer's going-concern company. Certainly, even the above-mentioned analysts would recognize these asset sale transaction-based FMV indications as going-concern value (and not liquidation value) indications. In addition to assets being sold from one going-concern seller to one going-concern buyer, going-concern companies themselves are often bought and sold. The purchase price allocation of that company sale price will indicate the going-concern value of the acquired assets. These overall company transaction-based FMV indications obviously conclude going-concern value (not liquidation value) conclusions.

In summary, it is true that the asset-based approach will conclude a liquidation value for the subject company if all of the individual asset values were concluded on a liquidation premise of value basis. Likewise, it is also true that the asset-based approach will conclude a going-concern value for the subject company if all of the individual tangible and intangible asset values were concluded on a going-concern premise of value basis.

VALUATION OF LIABILITIES IN THE ASSET-BASED APPROACH

Most analysts focus on the valuation of the company assets during the application of any asset-based approach valuation method. However, the valuation of the company liabilities can also be an important procedure in this valuation approach.

The first procedure in the liability valuation is to understand the appropriate standard of value objective and the subject assignment purpose. That is, the analyst may conclude a different value for the same liability if the standard of value is fair value versus fair market value versus investment value versus some other standard of value. And, if the valuation purpose is a solvency analysis pre-

pared within a litigation context, then the analyst will typically consider the recorded balances in the subject company liability accounts. After all, those are the liability amounts that the creditors can claim in, say, a bankruptcy proceeding. And, one objective of the solvency analysis is to see if the value of the company's assets (based on a fair valuation amount) exceeds the amount of the company's liabilities (based on a recorded amount).

Outside of a litigation-related solvency analysis, the analyst may be more concerned with the current value of the company liabilities than with the recorded balance of the company liabilities. Depending on the applicable standard of value, the analyst is more concerned with an expected trading price for the company's debt instruments. That is, how much would an investor pay to own, say, the company's note payable? Or, how much would the debtor have to pay to the creditor (i.e., how much would the creditor be willing to receive) to extinguish the company's note payable?

In an analysis of the current value of the company liabilities, the analyst typically considers such factors as:

1. the debt instrument's term to maturity,
2. the entity's historical debt service record,
3. the debt instrument's embedded interest rate versus a current market interest rate,
4. whether the debt instrument is callable (and what are the call triggers),
5. any security interests related to the debt,
6. the company's current credit rating,
7. the company's current financial condition,
8. the company's budget or financial projections,
9. any prepayment or other penalties related to the debt,
10. any recent trades of guideline debt instruments,

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11. the subject debt amortization (payment) schedule, and
12. the existence and timing of any debt balloon payments.

So, as one part of the asset-based approach, the analyst may revalue all of the subject company recorded bond, note, mortgage, and debenture liabilities. This analysis would include the entirety of the subject company liability accounts, including any long-term debt amounts recorded as current liabilities for financial accounting purposes.

In addition, the analyst may identify and value all of the subject company contingent liabilities. Such liabilities do not meet the GAAP requirements to be recorded on the subject company balance sheet for financial accounting purposes. Nonetheless, such unrecorded liabilities could have a material effect on the value of the subject company's equity.

There are several generally accepted methods that may be used to value contingent liabilities. Often, the analyst attempts to estimate the net present value (NPV) of the expected future cash payments associated with extinguishing that liability. That NPV analysis considers the expected amounts of—and the expected timing of—the future cash payments. Such an NPV analysis typically considers the probabilities associated with the subject company future contingent liability payments. This consideration may be quantified either through scenario analysis or through a risk-adjusted present value discount rate.

Such contingent liabilities may include the following types of claims against the subject company:

1. Tax audit or other taxation-related disputes
2. Employee-related disputes
3. Environmental claims and other clean-up issues
4. Tort (such as infringement) litigation claims
5. Breach of contract litigation claims

Unlike liabilities that are recorded on the company balance sheet, there is no single data source for the analyst to identify off-balance-sheet contingent liabilities. If such interviews are available, the analyst may interview the company management and legal counsel. In addition, analysts often review board of directors meeting minutes, company management committee meetings, and company financial plans and forecasts in order to identify possible contingent liabilities.

TREATMENT OF INCOME TAXES IN THE ASSET-BASED APPROACH

There is a diversity of practice with regard to the treatment of income taxes in the asset-based approach analysis. The issue is this: the asset-based approach assumes the sale (not a liquidation sale, but a going-concern transfer of a bundle of assets) of the subject company assets. Such an asset sale would normally be a taxable event. In an actual sale transaction, the asset seller would be responsible for income taxes related to any gain on the sale. And, that gain on the sale would be calculated as (1) asset sale price (based on the asset value) minus (2) the asset tax basis. For many of the intangible assets included in the valuation analysis, the tax basis for such assets is often zero.

Most analysts implement one of three alternative procedures with regard to the treatment of income taxes in the asset-based approach:

1. Ignore all income tax consequences related to the revaluation of the company assets
2. Calculate the expected income tax liability associated with the asset revaluation and recognize that specific liability on the revalued balance sheet
3. Calculate a deferred income tax liability account based on the present value of the expected future income tax payments

The use of the first procedure is often justified by several explanations. Some analysts say that they often do not have the data they need to calculate the exact income tax liability related to the asset revaluation. Some analysts also say that they are not income tax accounting experts, and they do not have the expertise to calculate the implied income tax liability. And, some analysts may say that the company assets will not actually be sold and the income tax payment will not actually be made. The company asset revaluation is just a hypothetical transaction that is part of a theoretical valuation exercise.

The use of the second procedure is often justified by several explanations. These analysts recognize that they may need data from company management or technical assistance from the company (or other) accountants. However, these analysts recognize that the hypothetical asset revaluation in the asset-based approach will not be tax-free to the hypothetical transaction participants. That is, if the company assets are hypothetically sold by the asset seller, then that asset seller will incur a corresponding hypothetical income tax liability. And, these analysts conclude that if the asset revaluation occurs on the valuation date, then the corresponding tax liability should be recognized on the valuation date.

The use of the third procedure is also justified by several explanations. These analysts recognize that there is a built-in capital gain associated with the asset-based approach revaluation of the company assets. This built-in capital gain is analogous to the built-in gain (BIG) valuation discount that is often associated with stock valuations prepared for federal gift and estate tax purposes. These analysts recognize that an actual asset revaluation (that would occur in, for example, post-bankruptcy fresh-start accounting) would result in a deferred federal income tax (DFIT) liability being

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recorded on a GAAP balance sheet. And, these analysts recognize that there is some uncertainty as to (1) how much income tax will ultimately be paid (i.e., what the company's effective income tax rate will be) and (2) when the income tax liability will ultimately be paid (i.e., when the asset would actually be sold in real life).

Since there is a divergence of analyst practice regarding the treatment of income taxes in the asset-based approach, this discussion does not recommend a right or wrong procedure. However, this discussion does recommend that each analyst may make a conscious decision as to which income tax liability convention to implement. And, each analyst should document the rationale for this decision in the valuation work paper file. In the asset-based approach analysis, the default decision (to ignore income taxes) has a direct impact on the valuation analysis and on the net asset value conclusion.

WHY THE ASSET-BASED APPROACH IS NOT MORE COMMON

For most types of companies—and for most business valuation assignments—the asset-based approach is a less commonly used valuation approach. That is, in most litigation-related engagements, analysts more commonly gravitate to the income approach and the market approach. That said, the asset-based approach is still a generally accepted business valuation approach. And, both the professional literature and the professional standards guide analysts to consider applying the asset-based approach in the business valuation analysis.

Although particularly applicable for many litigation-related valuation assignments, the asset-based approach is less commonly applied for the following reasons:

1. Analysts need more data to perform this approach than they may otherwise need to perform other valuation approaches.

2. This approach is more client-intrusive than other valuation approaches.
3. This approach typically takes more analyst time to complete than other valuation approaches.
4. Due to the increased analyst time required, this approach typically costs more to complete (in terms of client fees) than do other valuation approaches.
5. This approach requires analysts to demonstrate expertise in the valuation of both assets and liabilities.
6. This approach requires analysts to identify and value both tangible assets and intangible assets.
7. This approach requires analysts to identify and value both recorded liabilities and contingent liabilities.
8. This approach requires analysts to demonstrate some expertise with regard to both financial accounting matters and income tax accounting matters.
9. Compared to other valuation approaches, the application of this approach typically requires a much more comprehensive discussion in the written or oral valuation report.
10. This approach is less well known to (and less understood by) creditors, potential transaction participants, lawyers, and judicial finders of fact.

The above-stated observations should not invalidate the use of the asset-based approach. And, these observations should not discourage the analyst from performing the asset-based approach. However, analysts should be aware of these considerations when performing the asset-based approach analysis, reaching the value conclusion, and preparing the business valuation report.

THE ASSET-BASED APPROACH AND THE VALUATION SYNTHESIS AND CONCLUSION

In the litigation-related valuation, analysts should consider asset-based approach value indications along with

income approach and market approach value indications. It is unlikely (but possible) that the analyst will rely solely on the asset-based approach value indication. Likewise, it is unlikely (but possible) that the analyst will rely solely on the income approach or market approach value indications.

As in any other business valuation synthesis and conclusion, the analyst may assign either a quantitative weighting or a qualitative ranking to each value indication. The analyst may assign either this explicit weighting or implicit weighting to the asset-based approach value indication based on:

1. the quantity and quality of available data for this approach,
2. the degree to which market participants consider this approach in the subject industry transactions,
3. the degree of confidence the analyst has in the analyses performed,
4. the degree of confidence the analyst has in the value conclusions reached, and
5. the amount of due diligence the analyst was able to perform with regard to the application of this approach.

Ideally, the asset-based approach value indications reconcile reasonably well with other value indications. When there are differences in value indications between approaches, these value differences should be explainable.

If there are material differences between value indications, the analyst may have to perform additional due diligence with regard to all of the business valuation analyses. If the asset-based approach value is materially lower than other value indications, that may indicate that (1) the subject company owns additional intangible assets that were not included in the valuation, (2) one of the intangible assets—such as goodwill—could be undervalued, or (3) one or more of the company liabilities could be overvalued.

If the asset-based approach value is materially greater than other value indications, that may indicate *Continued on next page*

However, much less has been written about the market approach. And while most business appraisers find the income approach strongly intuitive, most of the non-BV world relates much more to the market approach. It's how we value our homes, our cars, our collectibles, and our 401Ks. We should deliver a market approach that is understandable and worthy of our profession and our professional designations. *✎*

- ¹ Gary Trugman, *Understanding Business Valuation: A Practical Guide to Valuing Small to Medium Sized Businesses*, 3rd ed., (American Institute of Certified Public Accountants, 2012), pp. 213-214.
- ² James R. Hitchner, *Financial Valuation Applications and Models*, 3rd ed., (John Wiley & Sons, Inc., 2011), p. 278.
- ³ *Estate of Hall v. Commissioner of Internal Revenue*, 941 F. 2d 1209.
- ⁴ Where R_F = the Risk-Free rate; R_{ERP} = Market Equity Risk Premium (for risks associated with the equities market in general); R_{SIZE} = Risk Premium associated with the size of the company relative to R_{ERP} ; R_I = Risk Premium associated with industry-specific risk associated with the company's industry relative to R_{ERP} ; and R_{CSCR} = Risk Premium not otherwise captured already.
- ⁵ Let me parenthetically make a suggestion. Now that we have connected the market multiples used in the market approach to expected rates of returns, or discount rates, I would suggest that it is just as important to understand how discount rates are derived when adjusting market multiples as when identifying the required rate of return in an income approach. To that end, you should familiarize yourself with the underlying theory and computations. For example, in this example, I adjusted the market multiple for risk adjustments for size as evidenced in the Duff & Phelps Portfolio Studies as reported in the Duff & Phelps *Valuation Handbook: Guide to Cost of Capital*. That reference provides detailed explanation and support for the size adjustments, and the analyst using them for either the income or market approach should be well versed in the underlying basis in theory and market evidence.



that (1) there is unrecognized economic obsolescence that should be considered in the tangible asset or intangible asset valuations, (2) one or more intangible assets may be overvalued (potentially due to the double counting of intangible asset value), or (3) the values of the subject company liabilities (particularly contingent liabilities) could be understated. The analyst's additional due diligence procedures should be able to identify and correct any of these situations.

ASSET-BASED APPROACH SUMMARY

The asset-based approach is a generally accepted business valuation approach. The asset-based business valuation approach should not be confused with the cost approach. The cost approach is a generally accepted approach to value individual tangible assets and intangible assets. In the application of the asset-based approach, analysts often use the cost approach to value certain categories of the subject company tangible assets or intangible assets.

The asset-based approach is based on the following relationship:

$$\begin{aligned}
 & \text{the value of total company assets} \\
 & \text{(both tangible and intangible)} \\
 & \text{minus} \\
 & \text{the value of total company} \\
 & \text{liabilities} \\
 & \text{(both recorded and contingent)} \\
 & \text{equals} \\
 & \text{the value of total company equity}
 \end{aligned}$$

Since the values of the subject company tangible and intangible assets are typically estimated based on a value in continued use premise of value, the asset-based approach normally concludes a going-concern value for the subject company. However, with numerous specific adjustments, the asset-based approach value could be adjusted to conclude a liquidation value for the subject company.

Normally, the asset-based approach will conclude a marketable, controlling ownership interest level of value for the company equity. If the subject assignment calls for a nonmar-

ketable, noncontrolling ownership interest level of value, then the analyst may have to apply a discount for lack of marketability and a discount for lack of control to the unadjusted value indication.

There are several generally accepted asset-based approach business valuation methods. The most common methods within this approach are the asset accumulation method and the adjusted net asset value method. Both of these methods are intended to conclude the value of all of the owned and all of the operated assets of the subject company. Therefore, while this valuation approach is applicable to the valuation of asset holding companies, it is also applicable to the valuation of operating companies.

The conduct of the asset-based approach may require additional data, additional client disruption, and additional analyst time and associated cost—compared to other business valuation approaches. There are numerous instances when the asset-based approach is perfectly applicable to the subject litigation-related assignment. Such assignments include valuations of transactions structured as asset sales, valuations for secured financing purposes, solvency and insolvency analyses, and others. In all cases, the analyst should weight the benefits of performing this valuation approach against the costs of performing this valuation approach.

Relevant valuation professional literature and valuation professional standards guide the analyst to consider the asset-based approach in every business valuation. Accordingly, the analyst should conclude—and document—the reasons for performing or not performing the asset-based approach in each litigation-related valuation analysis.

This is part one of a three-part article. In subsequent issues, we will examine the asset accumulation method and the adjusted new asset method. *✎*