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Thought Leadership in Property Taxation
Planning, Compliance, and Controvery

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Insights

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Insights

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Thought Leadership in Property Tax Planning, Compliance, and Controversy

Editor for This Issue: John C. Ramirez

Property Tax Valuation Insights

Valuation Practices and Procedures Insights

Family Law Insights

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2016 Recipient of the Apex Literary Award

Forethoughts

This *Insights* issue focuses on ad valorem property tax planning, compliance, and controversy topics. In particular, this issue focuses on topics that relate to the unit principle valuation of the taxable property owned by industrial and commercial taxpayers. These property tax valuation issues are often the subject of disputes between taxing authorities and corporate taxpayers.

This *Insights* issue addresses the extraction of relevant valuation pricing data from market-based evidence and examines the different investment characteristics between operating assets and negotiable securities. Valuation analysts involved in a property tax valuation dispute often disagree on the comparability of market-based pricing data to the subject taxable property.

This *Insights* issue also presents several discussions related to unit principle valuations. The specific unit principle valuation topics discussed include (1) distressed property and vacancy shortfall, (2) flotation cost adjustments to the cost of capital, (3) negative event risk adjustments, (4) differences between unit valuations and business valuations, and (5) adjustments to exclude goodwill value. Goodwill valuation—and the extraction of this intangible asset from the total unit value—are important components of the property tax valuation.

Finally, this *Insights* issue focuses on several industry-specific property tax valuation concerns. These unique property tax concerns relate to the valuation of wind energy facilities and undeveloped mineral interests. The implications of these unique considerations affect the value of taxpayer property in the subject industries.

Willamette Management Associates analysts routinely perform the following ad valorem property tax valuation services: (1) valuation of the total unit of taxpayer operating property (including both tangible assets and intangible assets), (2) capitalization rate studies, (3) functional obsolescence and economic obsolescence analyses, (4) flotation cost studies, and (5) valuation of taxpayer intangible personal property.

About the Editor

John Ramirez

John Ramirez is a vice president in our Portland, Oregon, office where he leads our property valuation services practice.

John has nearly 15 years of experience in providing valuation consulting and economic advisory consulting services. These services include performing valuations and economic analyses for purposes of forensic analysis and dispute resolution, income tax and property tax compliance, estate and gift tax planning, bankruptcy, shareholder oppression and dissenting shareholder rights claims, transfer pricing, transaction opinions, commercial damages disputes, regulatory compliance, executive compensation analyses, and appraisal review.

John's practice is focused on assisting taxpayers, taxing authorities, and their advisers on issues related to unit principle property valuation, the identification and valuation of taxpayer intangible assets, capitalization rate studies, and obsolescence studies.

Recently, John has completed the following types of analyses: (1) intangible personal property valuations for two of the largest U.S. railway companies and a multinational telecommunication company, (2) unit valuations for property tax dispute resolution purposes involving two natural gas distribution facilities in Missouri and electric generating facilities in New Mexico and Texas, and (3) commercial litigation damages analyses involving the purchase of a multi-billion dollar oil and gas storage facility in Texas and a fly-fishing fly manufacture with operations in Oregon and the Philippines.

John has authored numerous professional journal articles on topics related to property tax valuation, intangible asset valuation, and business valuation. He has published in such professional journals as the *Journal of Property Tax Assessment & Administration*, *Journal of Multistate Taxation*, *Valuation Strategies*, and *Insights*.

John received a bachelor of science degree in business administration, with a concentration in finance, from Portland State University School of Business Administration magna cum laude (with honors).

John is an accredited senior appraiser (ASA) of the American Society of Appraisers, accredited in business valuation. And he is a member of the Portland chapter of the American Society of Appraisers.

Thought Leadership

Extracting Relevant Pricing Data from Market-Based Evidence

John C. Ramirez and Casey D. Karlsen

Both property tax assessors and property owners often rely on market-based evidence ("market evidence") to estimate the value of an industrial or commercial taxpayer's taxable property for ad valorem property tax purposes. This market evidence may include (1) valuation pricing multiples extracted from either comparable property sales data or guideline publicly traded company transactional data, (2) yield capitalization rates or direct capitalization rates extracted from comparable property or capital market data, or (3) various indicators of the subject property economic obsolescence. These market-derived data are often used to perform the three generally accepted approaches to industrial or commercial property valuation. However, such market evidence may not be appropriate for the property tax valuation assignment. This is because the market evidence may not be sufficiently comparable to the subject taxable property so as to provide credible valuation results. This discussion describes common uses of market evidence in each of the three generally accepted property valuation approaches. And, this discussion examines relevant comparability factors for valuation analysts to consider when extracting pricing data from market-based evidence.

Introduction

Valuation analysts ("analysts") often rely on market evidence in order to estimate the value of an industrial or commercial taxpayer's taxable property for ad valorem property tax purposes.

Depending on the type of the subject taxable property, the analyst may apply either the summation principle or the unit principle of property valuation. If the various categories of industrial or commercial operating assets can be appraised separately from each other, the analyst will often apply the summation principle of property valuation.

Alternatively, if the various categories of industrial or commercial operating assets are physically, functionally, and economically integrated, the analyst will often apply the unit principle of property valuation. In a unit principle valuation, the analyst values all of the taxpayer's total operating property collectively, as a single integrated "unit" of operating assets (the "total unit"). The total unit is often defined as the taxpayer's total bundle of operating assets (including tangible assets, intangible assets, and financial assets), working collectively as a single income-producing unit of property.

Analysts often value "utility type" taxpayer property based on the unit principle of valuation. Such "utility type" taxpayer properties may include railroads, airlines, electric generation and distribution properties, interstate pipelines, hospitals and other health care properties, sports and entertainment facilities, water and wastewater distribution properties, natural gas distribution properties, oil and gas refiners, chemical and other integrated processing plants, telecommunications properties, cable television properties, and many more.

This discussion focuses on the selection and application of market-based pricing (and other empirical) evidence in the generally accepted property valuation approaches as applied within a unit principle valuation.

Accordingly, this discussion has broad application to unit principle property valuations performed for

industrial and commercial property tax planning, compliance, and controversy purposes.

The Use of Market Evidence

The use of market evidence in unit principle valuations is not limited to the application of the market approach. Analysts typically rely on market evidence in all three generally accepted property valuation approaches—the income approach, the market (or sales comparison) approach, and the cost approach.

The use of market evidence in all three industrial and commercial property valuation approaches to value is recognized in *The Appraisal of Real Estate*. This property appraisal textbook refers to the market approach as the sales comparison approach. This naming convention is used in *The Appraisal of Real Estate* (and in other property appraisal textbooks) because "all three approaches to value are 'market' approaches in that they rely on market evidence."[1]

The appeal of using market evidence in unit principle valuations is understandable—the use of market evidence can provide relevant indications of value based on actual transactional data. However, in order to provide a credible value indication, it is necessary for the market evidence to be relevant to the valuation subject. In the context of an industrial or commercial property tax valuation, it is necessary for the market evidence to be sufficiently comparable to the subject taxable property.

This discussion examines market evidence in the context of each of the three generally accepted property valuation approaches—the market approach, the income approach, and the cost approach. And, within the market approach, this discussion examines the use of market evidence in:

1. the stock and debt valuation method (also sometimes referred to as the guideline publicly traded company or "GPTC" method) and
2. the comparable sales method (also sometimes referred to as the guideline transaction method).

In each of these valuation approaches and methods, this discussion (1) describes the common uses of market evidence and (2) examines the relevant comparability factors to consider when relying on market evidence.

The Market Approach and the Stock and Debt Method

In a unit principle valuation, analysts may use the market (or sales comparison) approach stock and debt method. In the stock and debt method, the sum of the taxpayer's long-term debt, preferred stock, and common stock results in a value indication of the total unit of taxpayer operating assets.

In the stock and debt method, the total unit value is sometimes estimated through the use of valuation pricing multiples extracted from selected GPTCs. Therefore, for purposes of this discussion, the term "GPTC method" is intended to be synonymous with the term "stock and debt method."

Valuation pricing multiples are developed by dividing the value of total GPTC stock and debt by the GPTC underlying financial fundamental metrics. Common financial fundamental metrics include the following:

1. Net sales
2. Earnings before interest and taxes ("EBIT")
3. Earnings before interest, taxes, depreciation, and amortization ("EBITDA")

In order to estimate the subject taxpayer total unit value, the valuation pricing multiples extracted from the GPTCs are applied to the respective underlying financial fundamentals of the subject total unit.

The market evidence relied on in the stock and debt method includes the operations, financial data, and the value of debt and equity of the GTPCs. In order to develop a credible stock and debt method value indication, it is necessary for the selected GPTCs to be sufficiently comparable to the subject taxpayer total unit.

GPTC Comparability Factors

When selecting GPTCs, analysts should carefully analyze the financial statements and other available data for both:

1. the subject taxpayer unit of operating assets and
2. the GPTCs.

This comparative financial analysis is intended to allow the analyst to identify any financial characteristics and factors that may indicate comparability (or a lack thereof) of the GPTCs to the subject taxpayer unit.

In two different judicial decisions, the U.S. Tax Court presented a list of factors to consider when

determining comparability. These factors were presented in the context of determining comparability of GPTCs to operating companies in business valuations performed for gift and estate tax purposes. However, these factors may also be useful for determining comparability of GPTCs in the context of unit principle property valuations performed for ad valorem property tax purposes.

In *Talichet v. Commissioner*, the U.S. Tax Court described six "guideposts in determining comparability":[2]

1. Capital structure
2. Credit status
3. Depth of management
4. Personnel experience
5. Nature of competition
6. Maturity of the business

In the *Estate of Victor P. Clarke*, the U.S. Tax Court listed the following factors, which may also be relevant for determining the comparability of the GPTCs to the subject taxpayer total unit:[3]

1. Products
2. Markets
3. Management
4. Earnings
5. Dividend-paying capacity
6. Book value
7. Position within the industry

It is clear from the Tax Court lists of comparability factors that the identification of relevant GPTCs requires more analysis than simply selecting companies that operate in the same industry as the subject taxpayer total unit.

Analysts should also consider, and where appropriate adjust for, differences between the subject taxpayer total unit and the GPTCs with regard to the following factors:

1. Liquidity
2. Leverage
3. Operating performance
4. Financial performance and profitability
5. Regulatory environment
6. Power purchase agreements or other material contracts that affect operations

The factors discussed above may help analysts determine which publicly traded companies are sufficiently comparable to the subject taxpayer total unit to provide credible property valuation results. However, the total taxpayer unit may likely consist of tangible assets, intangible assets, and financial assets. Accordingly, the subject taxpayer unit of operating assets may include both taxable property and nontaxable property.

Therefore, the analyst may need to further consider comparability of the subject taxable property to the GPTCs with regard to:

1. the presence of intangible assets and
2. anticipated future growth.

Comparability with Regard to Intangible Assets

GPTCs are going-concern business enterprises. The operating assets of the GPTCs include both tangible assets and intangible assets. The GAAP-based balance sheets of GPTCs may include the acquisition date value of acquired intangible assets such as customer relationships, patents, and goodwill.

In addition, the GPTCs may benefit from numerous internally developed intangible assets that are not recorded on the balance sheet prepared in accordance with U.S. GAAP. Such internally developed (and, therefore, unrecorded) intangible assets may include a trained and assembled workforce, computer software, customer databases, trademarks, contracts, and numerous other intangible assets.

However, for property tax purposes, the subject taxable property may be the taxpayer's tangible property only—and not the taxpayer's total assets operating as a going-concern business enterprise. The taxpayer's total unit of assets operating as a going-concern business enterprise may include nontaxable property, such as financial assets, identifiable intangible assets, goodwill, and the present value of growth opportunities.[4]

In order to mitigate the differences between the operating assets of GPTCs and the subject taxpayer taxable property with regard to intangible assets, the analyst may:

1. rely on GPTC income only from assets that are comparable to the subject taxpayer taxable property, when possible, or
2. remove the value of any nontaxable intangible assets from the stock and debt method total unit value indication.

Comparability with Regard to Expected Future Growth Rates

A second key difference between the GPTCs and the subject taxpayer taxable property is the GPTC value attributed to expected future growth.

Investors in GPTCs are compensated through both:

1. a return of capital, in the form of current period dividends or other distributions and
2. a return on capital, in the form of expected future appreciation (or growth) in the investment value.

The valuation pricing multiples derived from GPTCs reflect investor expectations regarding both (1) the risk of the investment and (2) the growth of the investment.[5]

However, significant differences in growth expectations often exist between GPTCs and the subject taxable property in unit principle valuations. The growth expectations of GPTCs may be influenced by differences with regard to the following:

1. Customer/supplier relationships
2. Physical location
3. Recently closed or anticipated acquisitions
4. Regulatory environment
5. Supply and demand
6. Other factors

For unit principle valuations of taxable property operating in a rate-regulated environment, GPTCs and the subject total unit may have further growth expectation differences. Revenue in a rate-regulated utility environment is generally limited based on a return on the utility's "rate base." The utility's "rate base" is typically comprised primarily of the subject taxable property.

In order to attain this expected growth, a regulated utility taxpayer would have to increase its asset base and/or file an appeal with the regulatory authorities. These limitations also have a significant effect on the growth expectations of the total taxpayer property unit and the valuation of taxable property in place as of the valuation date.

By relying on valuation pricing multiples that have not been adjusted for differences in growth expectations, analysts may significantly overstate the value of the subject property. In order to reconcile the difference in growth expectations of the GPTCs and the subject taxable property in place as of the valuation date, the analyst may find it necessary to adjust the GPTC valuation pricing multiples to remove any expectations of future growth.

In summary, to extract credible market evidence for use in the stock and debt valuation method, analysts may:

1. analyze relevant comparability factors to mitigate differences between the GPTCs and the subject total unit and
2. adjust for any differences between the GPTCs and the subject taxable property of the subject total unit.

Typically, these differences include dissimilarities with regard to intangible assets, growth rate expectations, operating and financial performance, regulatory environment, and other factors.

The Market Approach and the Comparable Sales (or the Guideline Transaction) Method

The comparable sales method of the market approach relies on recent sale transactions of similar units of property to estimate the value of the subject property.

If the sales relate to properties that are directly comparable to the subject property, then the transactions are referred to as comparable sale transactions. If the sales relate to properties that are sufficiently comparable to provide pricing guidance to the analyst (but the sales are not directly comparable to the subject property), then the transactions are referred to as guideline sale transactions.

According to *Property Taxation*, "In the sales comparison approach methods, recent sales of comparative units of assets are gathered. Adjustments are applied to this transactional data to account for differences in location, time of sale, physical characteristics, and so on, between the taxpayer unit of assets and the comparable units of operating assets. The adjusted transactional data are analyzed to extract market-derived pricing indicators."[6]

These market-derived pricing indicators, or valuation pricing multiples, are then applied to the relevant subject property financial fundamentals in order to estimate the value of the subject property.

Common subject property financial fundamental metrics include the following:

1. Net sales
2. EBIT
3. EBITDA

The market evidence relied on in the comparable sales method consists primarily of comparable sale transactional data. The comparable sales method is reliable only when:

1. the analyst can identify either comparable or guideline sale transactions that are sufficiently similar to the subject property and
2. any differences between the comparable or guideline sale transactions and the subject property can be reconciled in the valuation analysis.

Sales Transaction Comparability Factors

In order to identify comparable or guideline sale transactions, analysts generally consider transactions in the same industry or a similar industry over several years prior to the valuation date. In general, the criteria used for the selection of comparable or guideline sale transactions are similar to those for selecting GPTCs.

Comparable or guideline sale transactions may, however, be dissimilar to the subject taxable property for a number of reasons, as summarized in Exhibit 1.

These comparability issues often render the use of the comparable sales method unreliable for estimating the value of taxable property for ad valorem property tax purposes.

When the comparable sales method is relied on to estimate the value of taxable property, analysts may further consider the comparability of the comparable or the guideline sales with regard to (1) synergies and (2) intangible assets.

These two comparability factors are discussed next.

Synergies

The standard of value in property tax valuations is often fair market value, or a standard of value that is equivalent to fair market value. The American Society of Appraisers defines fair market value as "the price, expressed in terms of cash equivalents, at which property would change hands between a hypothetical willing and able buyer and a hypothetical willing and able seller, acting at arm's length in an open and unrestricted market, when neither is under compulsion to buy or sell and when both have reasonable knowledge of the relevant facts."[7]

The contemplated buyer and seller in the fair market value standard of value are hypothetical, and not specific, willing buyers and willing sellers. This fair market value definition is different from the investment value definition, which is presented in *The Appraisal of Real Estate* as, "[t]he specific value of a property to a particular investor or class of investors based on individual investments requirements; distinguished from market value, which is impersonal and detached."[8]

Exhibit 1
Sales Transaction Comparability Issues

1. Transaction prices may, and likely do, include payment for operating assets that are not included in the subject taxable property.
2. Transaction details are often confidential; public disclosure may not provide sufficient data to establish general comparability or the magnitude of any adjustment necessary to create sufficient comparability for property tax valuation purposes.
3. The transaction purchase price may reflect buyer-specific synergies, so the transaction purchase price may represent investment value—and not fair market value.
4. The transaction purchase price may have occurred under a different regulatory environment where allowed returns were either higher or lower than those earned by the subject taxpayer.
5. The transaction purchase price may reflect a different level of and types of intangible assets.
6. The selected transactions may have occurred under different industry or economic conditions.
7. There may be insufficient data regarding either the transaction purchase price or the subject acquired company so as to properly perform the comparable sales method.

Investment value is often greater than fair market value. This is because a particular buyer may expect to extract synergistic benefits from an acquisition that are not available to the market participants in general. These synergistic benefits may include the following:

1. Economies of scale
2. Financial economies such as better credit ratings
3. Increased market power
4. Income tax attributes such as net operating loss carryforwards[9]

As a result of these anticipated benefits, the purchase price for synergistic transactions may be higher than the fair market value for a transferred bundle of operating assets.

Synergistic value may be evidenced through a comparison of price-to-earnings ("P/E") pricing multiples paid by:

1. strategic buyers in all transactions and
2. financial buyers in going-private transactions.

Strategic acquisitions generally include a price premium for (1) ownership control and (2) expected post-deal economic synergies. However, financial acquisitions in going-private transactions are commonly believed to include a price premium for ownership control only—and no price premium associated with expected post-deal economic synergies.

A study of data from *Mergerstat Review* from 1990 to 2010 found that the median P/E pricing multiples paid by strategic buyers were 12.9 percent higher than the median P/E pricing multiples paid by financial buyers. This comparison of transactional data suggests empirical support for a synergistic price premium. Accordingly, an analyst may significantly overvalue the subject taxpayer property by relying on comparable sales that include a synergistic premium.

The presence of synergies in a transaction does not necessarily preclude the use of valuation pricing multiples for unit principle valuations. However, when valuation pricing multiples from synergistic transactions are used, the resulting value will be a synergistic value (i.e., investment value).

If the valuation objective is to estimate fair market value (or an equivalent standard of value), then the valuation pricing multiples should be adjusted to remove the effect of synergies. If this procedure is not possible, then the analyst should exclude synergistic transactions from the group of comparable or guideline sale transactions.

Intangible Assets

For property tax purposes, the subject taxable property is generally not the taxpayer corporation's going-concern business enterprise. However, comparable sales often represent the sale of going-concern companies (including all tangible assets and all intangible assets, operating collectively as a business enterprise)—and not just the sale of tangible property.

In order to maintain comparability between the transactional data of going-concern companies and the subject taxable property, adjustments should be made to remove nontaxable financial assets and intangible assets (including intangible assets not recorded on the target company's balance sheet). Such financial (working capital) assets and intangible assets may be removed from one of the following:

1. The price of the comparable sales
2. The valuation pricing multiples
3. The comparable sales method value indications

In summary, the transaction data relied on in the comparable sales method are often not comparable to the subject taxable property with regard to:

1. synergies,
2. intangible assets, and
3. other factors.

The comparable sales method is only reliable to the extent that the analyst can:

1. identify comparable or guideline sales that are sufficiently similar to the subject taxable property and
2. reconcile any meaningful differences between the subject taxable property and the comparable or guideline sales.

Income Approach

The generally accepted income approach unit valuation methods include the following:

1. The direct capitalization method
2. The yield capitalization method

In the income approach, the indicated total unit value is the present value of the expected income to be earned from the operation of the total unit. This expectation of prospective income is converted to present value—that is, the indicated value of the taxpayer's total unit of operating assets.

In the direct capitalization method, the selected measure of income is projected for a single future period—that is, for a typical "next period" after the valuation date. The projected income is capitalized by (i.e., divided by) a direct capitalization rate.

In the yield capitalization method, the selected measure of income is projected for several years in a discrete projection period. The yield capitalization rate is applied to the discrete income projection in order to conclude the present value of the projected income stream.

In both the direct capitalization method and the yield capitalization method, income can be measured in several different ways. For unit valuation purposes, common measures of the subject total unit income include net operating income, operating cash flow, before- or after-tax net income, and before- or after-tax net cash flow.

In all income approach unit valuation analyses, there should be consistency between (1) the income measure subject to analysis and (2) the estimation of the direct capitalization rate or yield capitalization rate. For example, an after-tax capitalization rate should be applied to an after-tax income measure.

Market evidence is often relied on in the income approach for the estimation of market capitalization rates. The yield capitalization rate is often estimated based on the band of investment (also called a "weighted average cost of capital") procedure.

When estimating the weighted average cost of capital, a variety of pricing data may be extracted from market evidence, including the following:

1. Required rates of return
2. Capital structures
3. Betas
4. Historical and prospective growth rates

A direct capitalization rate can then be estimated by subtracting the expected long-term growth rate from the yield capitalization rate.

Comparability with Regard to Income Taxes

In both the yield capitalization method and the direct capitalization method, analysts should be consistent in:

1. the development of the income measure to be capitalized and
2. the estimation of the capitalization rate.

That is, if the analyst decides to capitalize after-tax net income in the direct capitalization method, the appropriate direct capitalization rate would be derived from a comparison of after-tax income data.

A data source that assessors commonly use to estimate yield capitalization rates is the Duff & Phelps *Valuation Handbook: Guide to Cost of Capital* series (the "Duff & Phelps handbooks"), which was published through Morningstar as the *Ibbotson SBBI Valuation Yearbook* (the "SBBI yearbooks") series prior to 2014.

The cost of capital data reported in the Duff & Phelps handbooks and SBBI yearbooks are after-tax data. And, without proper adjustments, these cost of capital data are only appropriate to estimate after-tax yield capitalization rates.

The Duff & Phelps *2017 Valuation Handbook: U.S. Guide to Cost of Capital* states, "Just as net cash flow is an after-tax concept (i.e., measured after entity-level income taxes), the discount and capitalization rates as developed in this book are also after-tax (specifically, after entity level or corporate income taxes, but before individual investor taxes)."[11]

"[A]n after-tax capitalization rate should be applied to an after-tax income measure."

The SBBI yearbooks similarly estimate cost of equity on an after-tax basis.

Both the Duff & Phelps handbooks and the SBBI yearbooks provide valuable information for estimating the cost of capital. However, unless proper adjustments are made, the capitalization rates derived from these data sources are only applicable to after-tax income measures.

Comparability with Regard to the Bundle of Assets

To develop credible valuation results, both the capitalization rate and the income measure should be derived from assets that are similar to the subject taxable property. That is, a credible total unit income approach analysis should rely on an income measure and a capitalization rate that are derived from a similar bundle of operating assets.

One distinction between unit principle valuation methods and summation principle valuation methods is that these two types of valuations often rely on different measures of income to estimate value. Unit valuation methods typically rely on operating business income (such as net operating income or EBITDA), and summation valuation methods generally rely on tangible property only rental income (actual or hypothetical).

If an analyst capitalizes operating business income, the resulting value will be the value of an operating business. And, this operating business value may include assets (i.e., intangible assets and financial assets) that may not be subject to property taxation in the subject taxing jurisdiction. An analyst may then have to adjust this operating business value in order to remove nontaxable assets so as to estimate the value of the subject taxable assets.

In addition to considering the comparability of the income measure to the subject property, analysts should consider the comparability of the capitalization rate to the selected income measure.

The direct capitalization rate that best matches the tangible property income is a direct capitalization

rate based on a tangible property weighted average cost of capital less an expected rental income growth rate. However, the direct capitalization rate in a unit valuation may be based on market-derived data including returns from publicly traded (going-concern business) stocks.

The market-derived data relied on to estimate a total unit direct capitalization rate may have a different risk profile compared to the subject property. And, this total unit direct capitalization rate may be materially different from a tangible property-only direct capitalization rate.

Therefore, if an analyst relies on a tangible property direct capitalization rate to capitalize total unit operating income, the resulting value indication may not be credible. That is, if an analyst relies on a direct capitalization rate derived from a different bundle of assets than the subject property, the value indication may be unreliable due to underlying differences between:

1. the subject taxpayer assets and
2. the assets used to estimate the direct capitalization rate.

In summary, when using the income approach, both the capitalization rate and the income measure to be capitalized should be:

1. derived from sufficiently comparable property and
2. applied on a consistent income tax basis.

Cost Approach

The generally accepted unit valuation cost approach methods include the following:

- The reproduction cost new less depreciation ("RPCNLD") method
- The replacement cost new less depreciation ("RCNLD") method
- The historical cost less depreciation ("HCLD") method

All cost approach methods require the recognition of value decrements associated with all forms of depreciation, including the following:

1. Physical deterioration
2. Functional obsolescence
3. External obsolescence (including economic obsolescence and locational obsolescence)

Property tax assessors and taxpayer property owners often have differing opinions with regard to the identification and estimation of economic obsolescence.

Economic obsolescence (or the economic component of external obsolescence) is a reduction in the value of property due to the effects, events, or conditions that are external to—and not controlled by—the current use or condition of the property. Economic obsolescence occurs when the property owner can no longer earn a fair return on the investment in the property.

Economic obsolescence is often identified and estimated through a comparison of the subject total unit actual performance to an appropriate benchmark.

According to *Property Taxation*, "When the taxpayer property is suffering negative excess earnings (compared to an appropriate benchmark measurement), the indicated income shortfall is capitalized. The result of these capitalization procedures is one way to quantify entrepreneurial profit or economic obsolescence."[12]

Economic obsolescence may be identified and/or quantified by a comparison of current results of the subject property operations compared to the following benchmark measurements:

- The subject property historical results
- The subject property budgeted results
- The subject property capacity results
- Benchmark property current results
- Taxpayer industry current results
- Guideline company current results
- Market expectations for the subject property (e.g., cost of capital)[13]

Examples of market evidence commonly used in the estimation of economic obsolescence include (1) taxpayer industry results, (2) guideline company results, and (3) subject property cost of capital market evidence.

Comparability of Indicators of Economic Obsolescence

In order to develop accurate indicators of economic obsolescence, the analyst should rely on market evidence of benchmark measures that are sufficiently comparable to the subject property. Economic obsolescence indicators are based on both internal benchmark measures and competitive (or industry) benchmark measures.

A common indication of economic obsolescence includes comparing the subject property actual rate of return to the subject property required rate of return. Economic obsolescence is indicated if the actual rate of return is less than the required rate of return.

If the market evidence used to estimate the subject property required rate of return is not sufficiently comparable to the subject property, then the indicated measure of economic obsolescence may not be credible. The relevant comparability factors would include those factors discussed above, such as, the level and type of intangible assets, growth expectations, operating and financial performance, and regulatory environment.

Common benchmark measures of economic obsolescence include comparing the subject property operating performance to industry or GPTC operating performance. Economic obsolescence is indicated if the subject property operating performance is below the level of industry or GPTC operating performance.

If the market evidence used to estimate the industry or GPTC operating performance is not sufficiently comparable to the subject property, then the indicated competitive benchmark measure of economic obsolescence may not be credible. In other words, if there are significant differences between guideline companies or the industry and the subject taxable property, and those difference cannot be reconciled in the valuation analysis, then the valuation result may not be credible.

Conclusion

Analysts often rely on market evidence in order to estimate the value of a taxpayer's industrial or commercial property for ad valorem property tax purposes.

Market evidence is often relied on in each of the three generally accepted property valuation approaches (the market approach, the income approach, and the cost approach). Market evidence may include the following:

1. Valuation pricing multiples derived from comparable or guideline sales or from guideline publicly traded companies
2. Capital market evidence used to estimate the cost of capital
3. Yield capitalization rates or direct capitalization rates extracted from comparable property or capital market income data
4. Indicators of economic obsolescence

Market evidence may (or may not) be appropriate for a particular valuation analysis. As presented in this discussion, the analyst's misuse of market data may result in value indications that are unreliable. In order to develop credible valuation analyses, the analyst should extract pricing data from market evidence that is sufficiently comparable to the subject taxable property.

"If the market evidence used to estimate the industry or GPTC operating performance is not sufficiently comparable to the subject property, then the indicated competitive benchmark measure of economic obsolescence may not be credible."

Notes:

1. *The Appraisal of Real Estate*, 14th ed. (Chicago: The Appraisal Institute, 2013), 36.
2. Talichet v. Commissioner, 33 T.C.M. 1133 (1974).
3. Estate of Victor P. Clarke, 35 T.C.M. 1482 (1976).
4. The present value of growth opportunities refers to expected future income from assets that are not yet in place on the valuation date. These future assets may be related to new product or service lines, expansion into new markets, major capital expenditures, or mergers or acquisitions.
5. *The Market Approach to Valuing Businesses*, 2d ed. (New York: John Wiley & Sons, 2005), 243.
6. *Property Taxation*, 4th ed. (Atlanta: Institute for Professionals in Taxation, 2015), 545.
7. *ASA Business Valuation Standards* (Washington: American Society of Appraisers, 2009), 27.
8. *The Appraisal of Real Estate*, 63.
9. Travis R. Lance, "Do M&A Transaction Prices Reflect Fair Market Value for Ad Valorem Property Tax Purposes?," *Journal of Multistate Taxation and Incentives* (May 2012): 26.
10. Ibid., 48.
11. *2017 Valuation Handbook: U.S. Guide to Cost of Capital* (Chicago: Duff & Phelps, LLC, 2017), 1–7.
12. *Property Taxation*, 539.
13. Robert F. Reilly and Robert P. Schweihs, *Guide to Property Tax Valuation* (Chicago: Willamette Management Associates Partners, 2008), 267.

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Willamette Management Associates
Thought Leadership in Valuation, Damages Analyses, and Transfer Price Analyses

Willamette Management Associates consulting experts and testifying experts have achieved an impressive track record in a wide range of litigation matters. As independent analysts, we work for both plaintiffs and defendants and for both taxpayers and the government. Our analysts have provided thought leadership in breach of contract, tort, bankruptcy, taxation, family law, and other disputes. Our valuation, damages, and transfer price analysts are recognized for their rigorous expert analyses, comprehensive expert reports, and convincing expert testimony. This brochure provides descriptions of some recent cases in which we provided expert testimony on behalf of the prevailing party.

Transfer Pricing Testifying Expert Services

In the matter of ***Amazon.com, Inc. & Subsidiaries v. Commissioner*** (148 T.C. No. 8 (2017)), the U.S. Tax Court found in favor of the taxpayer plaintiff. The case involved a 2005 cost sharing arrangement that Amazon entered into with its Luxembourg subsidiary. Amazon granted its subsidiary the right to use certain pre-existing intangible property in Europe, including the intangible assets required to operate Amazon's European website business. The Tax Court held that (1) the Service's determination with respect to the buy-in payment was arbitrary, capricious, and unreasonable; (2) Amazon's CUT transfer price method (with some upward adjustments) was the best method to determine the requisite buy-in payment; (3) the Service abused its discretion in determining that 100% of technology and content costs constitute intangible development costs (IDCs); and (4) Amazon's cost-allocation method (with certain adjustments) was a reasonable basis for allocating costs to IDCs. Robert Reilly, a managing director of our firm, provided expert testimony on behalf of taxpayer Amazon in this Section 482 intercompany transfer pricing case.

Income Taxation Testifying Expert Services

On February 21, 2017, the U.S. Court of Federal Claims dismissed (with prejudice) the complaint filed by plaintiff **Washington Mutual, Inc.**, against the United States (Nos. 08-321T, 08-211T). The taxpayer plaintiffs were seeking a refund of at least $149 million in certain federal taxes paid by H.F. Ahmanson & Co. ("Ahmanson") during several tax years in the 1990s, based upon the abandonment loss and amortization deductions available under the Internal Revenue Code. The case involved the fair market value determination of the regulatory right to open deposit-taking branches in certain states other than California ("branching rights"), the contractual approval right to treat the goodwill created by certain acquisitions as an asset for regulatory accounting purposes ("RAP rights"), and certain other intangible assets. Curtis Kimball, a managing director of our firm, critiqued the valuation report presented by the plaintiff's valuation expert and provided rebuttal expert testimony on behalf of the U.S. Department of Justice regarding the valuation of branching rights and RAP rights intangible assets. The Claims Court dismissed the plaintiffs' tax refund claims.

Condemnation Proceeding Testifying Expert Services

In the matter of ***Town of Mooresville v. Indiana American Water Company*** (2014), Willamette Management Associates was engaged by the defendant to perform a valuation analysis of the Indiana American Water Company (the "company") retail water system located in Mooresville, Indiana. The purpose of the analysis was to assist the company in a condemnation proceeding initiated by the town of Mooresville, Indiana. Our assignment was to estimate the fair market value of the company total operating assets (as part of a going concern). The primary valuation issue in the dispute was: should all of the company operating assets (financial asset accounts, tangible property, and intangible assets) be assigned value in a condemnation proceeding? Or, should the condemnee receive the accounting book value (or regulatory "rate base") of the tangible assets only? After a jury trial, at which Robert Reilly, a managing director of our firm, provided expert testimony, the jury's decision favored our analysis and awarded Indiana American Water Company the value of both its tangible assets and its intangible assets.

Family Law Testifying Expert Service

In a marital dissolution matter in 2016, the Superior Court of Arizona, Maricopa County, found in favor of the husband in the family law case ***In re the Marriage of Julie Anne Bowe and Gregory James Vogel, Sr.*** (No. FC2014-001952), Willamette Management Associates was engaged by Gregory Vogel, as president and owner of Land Advisors Organization (LAO), a national land brokerage business, to prepare a valuation analysis. Charles Wilhoite, a managing director of our firm, provided expert testimony. The purpose of the analysis was to assist with facilitating the property settlement aspects of the parties' marital dissolution. The primary valuation issues in the dispute were (1) the most appropriate valuation date and (2) the appropriate historical period of operating results to be relied on as a foundation for estimating the expected future earnings in a capitalization of cash flow business valuation analysis. The Court favored the Willamette positions, resulting in a judicially concluded value for LAO significantly lower than the opinion offered by the opposing valuation experts. This case is currently being appealed.

Bankruptcy Testifying Expert Services

Willamette Management Associates was engaged by the proponents of a reorganization plan to prepare a declaration in the matter of *In re Plant Insulation Company* (No. 09-31347, U.S. Bankruptcy Court, N.D. Cal. 2014). Our assignment was to review the declarations of the opposing experts in this case and to offer our opinion on certain shareholder agreements related to the matter. In particular, we were asked to review a right of first offer agreement and to opine on its impact on the control, transfer, and value of common stock and warrant interests in Bayside Insulation and Construction, Inc. Following a trial, at which Willamette managing director Curtis Kimball offered rebuttal expert testimony, the U.S. Bankruptcy Court accepted the plan of reorganization proposed by the Futures Representative of the Official Committee of Creditors.

Property Taxation Testifying Expert Services

Willamette Management Associates was engaged by the plaintiff to prepare a forensic analysis expert report for *Sandy Creek Energy Associates, LP, and Brazos Sandy Creek Electric Cooperative, Inc., v. McLennan County Appraisal District* (No. 2014-3336-4, Dist. Ct. McLennan County, Texas, August 2016). The purpose of the Willamette expert report and expert testimony was to assist the owners of the Sandy Creek coal-fired electric generating plant (the "plant") in a property taxation dispute with the McLennan County Appraisal District (the "district"). Our assignment was to review and rebut the unit valuation expert report and testimony provided by the district's valuation expert. One issue in the dispute was the amount of economic obsolescence associated with the plant. As of the property tax assessment date, the plant's cost to produce electricity was significantly greater than the wholesale price of electricity. As described in the Willamette expert report, these operating conditions indicated that economic obsolescence was present in the plant. After a week-long trial, at which Willamette managing director Robert Reilly offered expert testimony, a jury decided that the fair market value of the plant was less than half of the value asserted by the district. This jury decision significantly favored the taxpayer, and it resulted in a substantial reduction in the plant's property tax assessment.

Dissenting Shareholder Rights Testifying Expert Services

In the case, ***In Re Appraisal of The Orchard Enterprises, Inc.*** (No. 5713-CS, 2012 WL 2923305 (Del. Ch. 2012), *aff'd* No. 470, 2013 WL 1282001 (Del. 2013)), Willamette Management Associates was retained on behalf of the petitioners in a case where the subject of the dispute was the fair value of the Orchard Enterprises, Inc. ("Orchard") common stock at the time the company was taken private. Orchard was a digital media services company specializing in music from independent labels with a mission to acquire distribution rights, build sales channels, and monetize these rights in new and innovative ways. The petitioners had received $2.05 per share in the going-private transaction. At trial, Tim Meinhart, a managing director of our firm, testified that the fair value of the Orchard common stock at the time of the go-private transaction was $5.42 per share. The court agreed with our overall conclusion that the transaction occurred at a price that was lower than the fair value of the stock. The court concluded that the common stock fair value was $4.67 per share at the time of the go-private transaction.

Distressed Properties, Vacancy Shortfall, and Entrepreneurial Incentive

Michelle DeLappe, Esq., and Andrew T. Robinson, MAI

A commercial property that suffers from below-market occupancy typically will not sell for as much as an identical commercial property with stabilized occupancy. Where property tax laws require a fee simple valuation of commercial property based on market rents, the assessed property value should reflect a valuation adjustment for any below-market occupancy. Estimating the effect of below-market occupancy on the value of commercial property requires an additional procedure in the real estate appraisal analysis: after first valuing the subject property at stabilized market occupancy, the real estate appraiser should then analyze the subject property at its below-market occupancy. The difference between market occupancy and below-market occupancy is referred to as "vacancy shortfall." This discussion explains the vacancy shortfall analysis, including consideration of a valuation adjustment for the entrepreneurial incentive that a typical investor would require to bring a destabilized occupancy property up to stabilized occupancy.

Introduction

Let's consider the values of two identical office towers: one fully leased by multiple tenants at market rents, and another completely vacant. Assuming all else is equal, the fully leased office tower will always sell for more than its vacant twin property.

But will that price differential mean lower property taxes for the vacant office tower? The answer depends on how the taxing jurisdiction determines values for property tax purposes.

In some taxing jurisdictions, "fee simple" may mean that commercial property should be valued as if vacant and available, as if the property is unencumbered with any leasehold interests. In those taxing jurisdictions, the value of the fee simple estate for both office towers should equal the market value of the vacant office tower.

In contrast, many taxing jurisdictions interpret "fee simple" as requiring that commercial property be valued as if leased, at market rents, as of the valuation date. In these taxing jurisdictions, the vacant office tower should have lower property taxes than its fully leased twin. That is, the vacant office tower should not be taxed at a level as though it enjoyed income from market rents at market occupancy when it is actually suffering from below-market occupancy.

Taxing the vacant office tower at that level would ignore market realities regarding how buyers and sellers determine the value of commercial property with below-market occupancy.

This discussion explains the vacancy shortfall analysis. The vacancy shortfall analysis is used to estimate the reduction in value due to below-market occupancy.

The vacancy shortfall analysis is the same analysis that buyers and sellers use to negotiate the selling price of a distressed property. This same analysis should apply when appraising a distressed commercial property for property tax purposes.

The analysis involves a two-step process:

1. Estimate the value of the subject property based on a stabilized level of market occupancy (i.e., estimate the "stabilized value" of the property).

2. Estimate the amount of vacancy shortfall to deduct from the stabilized value indication to account for the costs and risks required to bring the subject property to stabilized occupancy.

Step One: Estimate Stabilized Value

The first step in valuing a commercial property with unstable occupancy is to determine the value of the property assuming stabilized occupancy.

This procedure is performed because, in order for vacancy shortfall to be feasible to cure, the value of the property with stabilized occupancy should be worth more than:

1. the value of the property with below-market occupancy plus
2. the costs required to stabilize occupancy.

In order to estimate the value of the property with stabilized occupancy, the real estate appraiser should first determine the highest and best use of the property. Typically, the highest and best use of commercial property is assumed to be *as improved, with stabilized occupancy*.

In all aspects of the commercial property valuation analysis, real estate appraisers attempt to mimic the valuation methods used by market participants to the extent possible.

Sometime, however, these real estate appraisal methods may differ from valuation methods used by market participants. This is because market participants rarely buy or sell the fee simple estate in real property.

Instead, depending on the type of commercial property, market participants more typically buy or sell a leased-fee interest in real property. Investment sales of properties subject to leases are sales of the leased fee.

For apartments, leases tend to be short term, and there may not be a significant difference between net operating income based on the leased-fee contract rent and the fee simple market rent. For retail, industrial, and office properties, long-term leases can differ significantly from market terms as of the valuation date.

Properties leased to credit tenants for lengthy terms typically have much higher leased-fee values than those leased for shorter terms, even if the rents are similar. For these property types the valuation exercise for property tax assessments is usually very similar to how market participants estimate the property's value, with the exception of any differences between contract lease terms and market lease terms.

When market participants buy and sell property that is closely comparable to the subject property for property tax purposes, real estate appraisers typically give most weight to the valuation approach that is most heavily relied on in the marketplace. Typically, the income approach is used to estimate the value of income-producing properties.

The cost approach, which is often used by property tax assessors, is infrequently used by the most probable buyers of income-producing properties.

The sales comparison approach is widely used, but its use varies in reliability depending on the availability and quality of sales data.

All three real property valuation approaches can be used to estimate the stabilized value of a subject property. This is because data regarding stabilized properties are typically more readily available than data for distressed properties.

In the income approach, the real estate appraiser will use market rents and stabilized occupancy rates. The subject property's actual contract rents may be higher or lower than market rents. Market rents can be estimated based on an analysis of comparable property lease rates near the valuation date.

In most jurisdictions, any difference between the subject property's actual contract rents and market rents would affect the value of the leased-fee interest in the property, not the fee simple estate that is the subject of the real estate appraisal.

The income approach direct capitalization rate should be derived from market-based data of comparable, stabilized properties. This is because, in this two-step analysis, any added risk due to destabilized occupancy will be accounted for in the amount of vacancy shortfall, not in the direct capitalization rate.

In the sales comparison approach, the real estate appraiser will rely on property sales that are sufficiently comparable to the subject property. Inherently, these comparable sales will reflect who the most probable buyer is for the subject property.

For example, in some industrial property markets, the most probable buyer may be an owner-operator (i.e., a strategic buyer—as opposed to a financial buyer). Owner-operators will often pay more than investors (i.e., financial buyers) for these vacant industrial properties. This is because the vacancy shortfall does not affect their purchase decision.

However, for most income-producing properties, sales of stabilized properties far outnumber sales of unstable properties. This weighs in favor of the real estate appraiser's use of sales of stabilized comparable properties.

If the appraiser's data include sales of both stabilized properties and unstable properties, then upward adjustments to reflect a stabilized value are appropriate for the sales of unstable properties. This adjustment should be consistent with the vacancy shortfall analysis procedures outlined below.

The income and sales comparison approaches offer the only opportunities for the real estate appraiser to follow how buyers and sellers negotiate selling prices for properties with below-market occupancy. The appraiser can discuss with the buyer and seller the effect on the sale price caused by unstable occupancy. Each party to the sale may have a different view of that effect.

To estimate a stabilized value from the cost approach, the real estate appraiser should consider the subject property's cost new, including an entrepreneurial incentive profit margin and all forms of depreciation.

Depreciation includes physical depreciation, functional obsolescence, and external obsolescence.

Physical depreciation will account for normal aging. It can be separated into short-term and long-term components.

Functional obsolescence will account for loss in value due to design. For example, an elbow space in a retail center will usually lease for significantly less than an identically sized space with normal exposure. Both physical depreciation and functional obsolescence can be curable or incurable.

External (sometimes called economic) obsolescence is value loss from factors outside of the property itself. This can be the effect of an oversupplied market, for example, which can result in high vacancy, whether throughout the market or concentrated at a specific property.

High vacancy can be cured by leasing the property, unless the high vacancy is the result of incurable obsolescence. The effect on value of curable high vacancy is addressed in the second step of the analysis.

What exactly does "stabilized occupancy" mean? It generally means the occupancy level of a new property that is reached after the initial lease-up period, and that is reasonably expected to continue into the future with the proper marketing, management, and maintenance expenditures.

Typically, stabilized occupancy is estimated to be about 95 percent or less, but this estimate is highly dependent on the property market, property type, and property location.

For example, office, industrial, retail, or multifamily properties are usually assumed to have 95 percent stabilized occupancy (i.e., 5 percent vacancy). Senior living and self-storage properties are often assumed to have lower stabilized occupancy, such as 90 percent or less. Chronically distressed property markets may have even lower levels of stabilized occupancy.

Lenders' underwriting assumptions of stabilized occupancy are often an acceptable market indication of stabilized occupancy. This is in part because lenders' assumptions of stabilized occupancy can directly affect market prices. In other words, lender's assumptions affect market prices because investors rarely purchase commercial property without lender financing.

Consequently, if lenders generally assume 95 percent stabilized occupancy for a subject property type, that may be an appropriate assumption to rely on in a vacancy shortfall analysis, even if the subject property's actual vacancy is different (whether higher or lower).

Not only do lenders underwrite property loans based on normal vacancy on a stabilized basis, but they must, under federal law, require that appraisals reflect a vacancy shortfall deduction for properties with below-market occupancy.

As stated in the federal guidelines governing financing appraisals of real estate, "the appraiser must make appropriate deductions and discounts to reflect that the property has not achieved stabilized occupancy."[1]

The federal guidelines also require "consideration of the absorption of the unleased space" and deductions or discounts for "items such as leasing commission, rent losses, tenant improvements, and entrepreneurial profit, if such profit is not included in the discount rate."[2]

At the end of the first step of the analysis, the real estate appraiser reconciles the various value indications to conclude the value of the property as though it enjoyed stabilized occupancy. By assuming stabilized occupancy as the basis of each value indication, the appraiser can reconcile values that are directly comparable to each other.

Trying to reconcile a stabilized value from a cost approach, for example, with a value from another approach that reflects below-market occupancy, would be confusing and could lead to error.

During the value reconciliation procedure, the real estate appraiser should give the most weight to value indications:

1. based on the quantity and quality of available data and
2. derived from valuation methods that best match the methods used by the most probable buyer of the subject property.

Step Two: Determine the Vacancy Shortfall

Atypically high vacancy at the time of sale can materially affect the price that a typically motivated buyer will pay for an income-producing property.

The second step in the analysis calculates this effect on the property's market value by estimating the vacancy shortfall. The vacancy shortfall consists of the costs that would be required to bring the property to stabilized occupancy, including an appropriate margin for entrepreneurial incentive.

The costs required to bring the subject property to stabilized occupancy include the lease-up costs that would be faced by a purchaser of the property. In estimating the lease-up costs, a prospective buyer would consider not only the nonleased units at the property but also the leased units that are not occupied (these units are often called "dark" units).

Let's consider, for example, a single tenant retail store. If this property is leased on a long-term basis, but the operator relocates to a new, modern format in the same trade area, an investor-purchaser will account for certain releasing costs that will likely need to be incurred.

To estimate the lease-up costs that are properly deductible from a stabilized value conclusion, the real estate appraiser should consider both direct costs and indirect costs.

Direct costs include tenant improvements that would likely be required for new leases based on a market lease analysis and normal commissions that would need to be paid to leasing brokers.

Indirect costs (or opportunity costs) would include any lost revenue incurred until the property is leased. This includes any rent loss due to vacant or dark units (based on market rent and the estimated absorption period), lost expense recoveries, and any concessions, such as free rent.

For units that are leased but dark, there are some additional considerations.

First, there is some level of income from the tenant until the end of the lease term. Second, the estimated absorption period may need to be adjusted to account for the unit's interim occupancy until the end of the lease term.

The estimated absorption period should consider whether the lease allows the owner to recapture the unit and/or show the unit to prospective tenants. The inability to show the unit to prospective tenants will obviously lengthen the absorption period.

One finer point of the vacancy shortfall analysis is to consider what percentage occupancy achieves stabilization and how that stabilization should be modeled. If a property is currently 80 percent occupied and stabilized market occupancy is 95 percent, should the vacancy shortfall be modeled on 20 percent vacancy or 15 percent vacancy?

The answer is that the real estate appraiser should follow the market. If the most probable buyers are basing their property buying decisions on 15 percent vacancy (calculated as the 95 percent stabilized market occupancy less the current 80 percent occupancy), then a 15 percent vacancy should be used.

For properties with multiple vacant units that comprise a larger vacancy shortfall, this is practical. For unstable properties where the vacancy is comprised of a single unit, this is not practical. A single tenant property is not going to realize 95 percent occupancy.

Another example would involve an anchored retail center. If the anchor space comprising 60 percent of the total property was vacant, while the remaining retail space remained full leased, then the lease-up costs would match what would be required to lease only the vacant anchor space.

At the end of the second step of the analysis, the real estate appraiser should include in the vacancy shortfall a profit margin for entrepreneurial incentive. This incentive is required to compensate the most probable buyer of the subject property for the risks associated with investing in a distressed property.

"[F]ederal guidelines governing financing-related real estate appraisals require consideration of entrepreneurial incentive for properties with vacancy problems."

The appraiser then deducts the vacancy shortfall from the stabilized value indication. The resulting value reflects the property's as-is market value (i.e., the property's market value based on the actual level of occupancy as of the valuation date).

Entrepreneurial incentive plays an important role in most investors' determination of the offer price for distressed properties. If investors fail to include entrepreneurial incentive when analyzing distressed properties, transaction costs (such as real estate transfer tax, brokerage fees, etc.) could result in investors losing money on any subsequent sale of distressed properties once stabilized.

As mentioned above, federal guidelines governing financing-related real estate appraisals require consideration of entrepreneurial incentive for properties with vacancy problems.

Though not discussed much in the real estate appraisal literature, at least two journal articles address this issue. These articles discuss the fact that the purchaser of a distressed property assumes entrepreneurial incentive as an important factor in the sales price to account for the risk and effort of bringing the property to stabilized occupancy.

William Ted Anglyn has written two articles on this subject: "Analyzing 'Unearned' Entrepreneurial Profit"[3] and "Distressed Property Valuation Issues."[4]

These journal articles explain that purchasers of distressed properties require compensation for the skill and risk involved in purchasing and stabilizing such properties and, therefore, it is appropriate to deduct a market-based amount for entrepreneurial incentive from the purchase price.

The authors of this discussion are unaware of any real estate appraisal literature that claims the opposite position (i.e., that entrepreneurial incentive does not factor into sales prices for distressed properties).

Market evidence from distressed property transactions further support the inclusion of entrepreneurial incentive in the vacancy shortfall analysis. The percentage of entrepreneurial incentive appropriate for a given property should be supported by market evidence from comparable transactions.

Real estate appraisers should interview market participants regarding the level of entrepreneurial incentive profit margin they typical require. Buyers will often seek as much profit as possible as compensation for the risk they are taking when acquiring distressed properties.

If there is competition for a property, however, the parties will usually negotiate and settle on a lower profit margin. The profit margin range is very dependent on the level of risk and the negotiation skill of the transaction parties. The entrepreneurial incentive profit margin typically can range from as low as 20 percent to over 100 percent of the lease-up costs.

Case Studies on Vacancy Shortfall Analysis

While sales of stabilized properties far outnumber sales of unstable properties, the market often demonstrates the impact of below-market occupancy on value.

Two case studies drawn from actual experience illustrate the type of market evidence that appraisers can derive from careful verification and analysis of distressed property transactions.

Case Study 1

The sale and resale of the same property shows how a near-term vacancy rollover affected value. The property was a multitenant retail center in a suburban market across the street from a regional mall. The retail center contained about 142,000 square feet on 11 acres.

In late 2011, the property was listed for sale at $18.5 million. It was extensively marketed and exposed to the market for a sufficient amount of time to receive multiple offers. The property was initially put under contract in February 2012 at $15.4 million with a 30-day due diligence period followed by a 60-day financing contingency.

A subsequent amendment in March 2012 lowered the offer price and waived the due diligence contingency. The offer was accepted and the transaction closed at a price of $15 million. This sale meets all of the criteria for a market value transaction.

While the property was stabilized at the time of sale, it was known that Office Depot would be relocating to a smaller store in a center a block to the south. So, effectively, occupancy was going to be 77 percent. This lowered the center's market value.

After this sale, the new owner stabilized the property by way of a new 10-year lease of the former Office Depot space to Total Wine.

Additionally, Big Lots had a termination option in year five (February 2014) that was eliminated, and PetSmart exercised its next two options, providing 12 years of remaining term. These changes significantly improved the center's risk profile.

With the execution of the Total Wine lease, the property was relisted for sale at $25.1 million. A purchase and sale agreement was negotiated with a regional investor. The purchase and sale agreement was executed in October 2013 at $24.5 million.

After the buyer's due diligence, including the property condition report that identified near-term capital requirements of $1.0 to $1.7 million, the buyer sought a lower price of similar magnitude. The seller resisted and the two parties settled on a discount of $595,000 to arrive at the closing price of $23.9 million.

Thus, stabilizing the property's occupancy contributed to a sale price nearly $9 million higher than the sale of the same property with unstable occupancy 19 months earlier.

Case Study 2

A sale of a retail property suffering atypically high vacancy indicates how buyers and sellers apply the vacancy shortfall analysis, including an entrepreneurial incentive profit margin, in determining a selling price. This sale was of a multitenant retail center in a suburban market across the street from a major anchor.

The center contained 10,000 square feet on 0.74 acres. The property was demised for eight spaces ranging from 1,200 to 1,600 square feet.

In 2014, the property was only 40 percent leased when it was listed for sale at $1,500,000. After a normal exposure period, a purchase and sale agreement was executed in January 2015 at $1,350,000. The sale met most of the criteria of a market value transfer with the possible exception of a typically motivated seller.

The seller was a lender that had foreclosed on the property in 2012. However, given that other offers at the time were around $1,300,000, it is unlikely that a higher sale price could have been achieved.

In this case, the comparable sales approach supported a stabilized value of $1,820,000. And, the income approach using market rent for the vacant space, a typical 5 percent vacancy, and a capitalization rate of 7.7 percent supported a stabilized value of $1,810,000.

The final purchase price implied a vacancy shortfall of $460,000 (calculated as the stabilized value of $1,810,000 minus the purchase price of 1,350,000).

This vacancy shortfall amount included lost rent, lost recoveries, tenant improvements, leasing commissions, and an entrepreneurial incentive profit margin. The absorption for this property was estimated at nine months downtime and included three months of free rent.

Exhibit 1 summarizes the vacancy shortfall analysis.

Clearly the property's listing price of $1,500,000 was an effort to account for some of the vacancy shortfall. If the property were able to sell at the list price, the implied entrepreneurial profit margin would have been about 35 percent of the full lease-up costs, or approximately $80,000.

This $80,000 implied entrepreneurial incentive profit margin is calculated as the stabilized value of $1,810,000 minus the lease-up costs of $227,592 minus the list price $1,500,000.

However, the property did not sell at the full listing price of $1,500,000. The actual sale price was $1,350,000, indicating that a 100 percent entrepreneurial incentive profit margin on the full lease-up costs was required.

The level of entrepreneurial incentive profit margin required is a function of risk. The higher the risk, the higher the reward.

A minor occupancy shortfall of 90 percent in a market where stabilized occupancy is considered to be 95 percent, may require an entrepreneurial incentive profit margin in the range of 10 percent to 20 percent.

As Case 2 demonstrates, this margin will ramp up significantly for higher levels of vacancy.

Also, while an entrepreneurial incentive profit margin of 100 percent to 125 percent may seem very high in terms of the percentage, it is not an extraordinary windfall. If the buyer of the unstable property was able to resell the property upon stabilization, the net profit would be based on the net proceeds of the stabilized sale less the seller's cost basis.

In this case, the stabilized sale profit would be $1,810,000 less normal sale costs of 5 percent, or net sale proceeds of $1,719,500. The seller's cost basis would consist of the purchase price of $1,350,000 plus the direct lease-up costs of $142,392 (leasing commissions, tenant improvements, and expenses not recovered) for a total cost basis of $1,492,392.

Exhibit 1
Vacancy Shortfall Analysis

Stabilized Value		**$1,810,000**
Total Rentable Area		10,000
Leased	40%	4,000
Vacant	60%	6,000
Vacancy Shortfall	6,000 sq. ft.	
Absorption Estimate - Months		18.0
Straight-Line Average Downtime		9.0
Lost Rent at Market ($/sq. ft. per month)	$1.18	$63,900
Free Rent (3 months)	$1.18	$21,300
Monthly NNN Rate	$0.47	$25,252
Commissions	6%	$27,140
Tenant Improvements	$15.00	$90,000
Subtotal of Full Lease-Up Costs		$227,592
Entrepreneurial Incentive Profit Margin	100%	$227,592
Total Vacancy Shortfall Absorption Deduction (rounded)		**$460,000**
Purchase Price		**$1,350,000**

Subtracting the seller's cost basis from the net sale proceeds results in a net profit of $227,108, or about 15 percent of the seller's cost basis.

If the entrepreneurial incentive profit margin in the vacancy shortfall analysis in this case was, say, 25 percent, keeping all else equal, this would imply a purchase price of around $1,530,000.

In this scenario, the net profit from purchase to resale would only be about 3 percent. It would not take much to go wrong in this case for this minor level of net profit to be eliminated.

Conclusion

For commercial real property that has below-market occupancy, real estate appraisers often have a strong case to apply a vacancy shortfall deduction in the property tax valuation if the property is being assessed as though it is at stabilized occupancy.

By applying the above described vacancy shortfall analysis when valuing distressed property, the real estate appraiser emulates the analysis that buyers and sellers typically use in market transactions to negotiate the sales prices of income-producing commercial properties with high vacancy at the time of sale.

Omitting the vacancy shortfall analysis—or even omitting the analysis of entrepreneurial incentive that a buyer would require for the added risk, skill, and effort involved in bringing the property to stabilized occupancy—would result in an overvaluation of the subject real property.

Notes:

1. Interagency Appraisal and Evaluation Guidelines at 36 (Dec. 2, 2010), available at https://www.fdic.gov/news/news/financial/2010/fil10082a.pdf.
2. Id.
3. William Ted Anglyn, MAI, "Analyzing 'Unearned' Entrepreneurial Profit," *The Appraisal Journal* (July 1992): 368. The article also discusses William L. Pittenger's seminar presentation "Contemporary Applications of Valuation Analysis" [1990] in Atlanta, Georgia.
4. William Ted Anglyn, MAI, "Distressed Property Valuation Issues," *The Appraisal Journal* (Spring 2005): 210–215.

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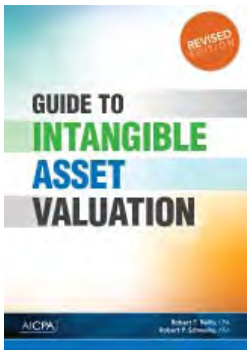
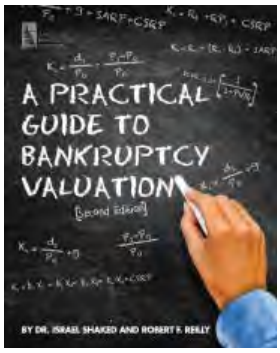
Valuation Textbooks Authored by Robert Reilly and Robert Schweihs





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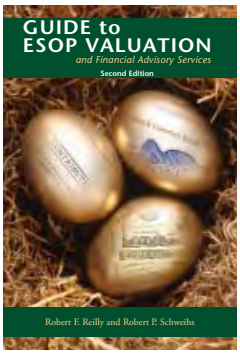

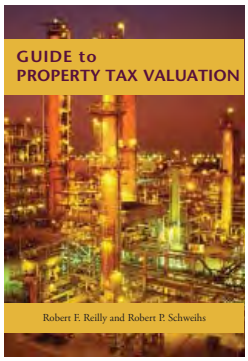

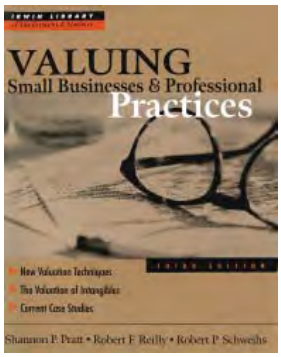

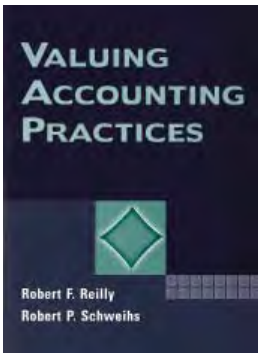

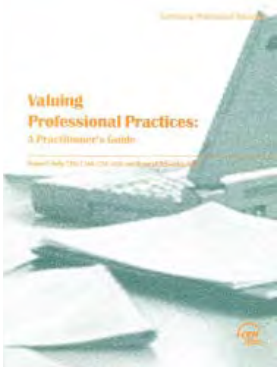

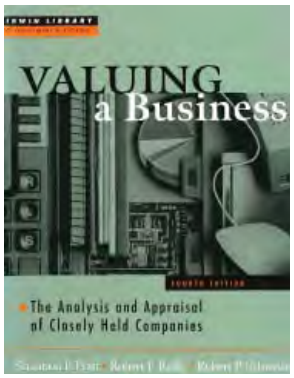

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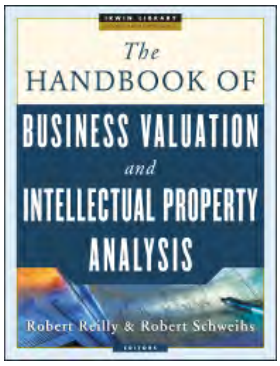

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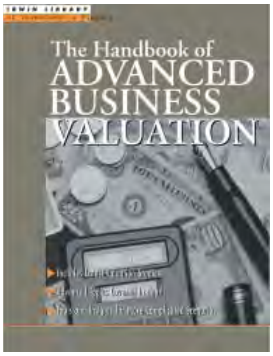

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Willamette Management Associates

Flotation Cost Adjustments to the Cost of Capital in Unit Principle Valuations

Casey D. Karlsen

Valuation analysts are often called on to perform flotation cost studies used in the estimation of the cost of capital for property tax valuation purposes. Flotation costs are the security issuer's cost associated with the public sale—or the private placement—of either debt capital or equity capital. Adjusting the cost of capital for flotation costs may have a material effect on the subject property value conclusion, particularly with regard to unit principle valuations. This discussion (1) summarizes the factors that influence the level of flotation costs and (2) explains the potential effect that a flotation cost adjustment can have on both the cost of capital and the property value conclusion in a unit principle valuation.

Introduction

Estimating the cost of capital in unit principle valuations prepared for property tax purposes may be a contentious issue between the taxing authority and the taxpayer property owner/operator. This is because small changes in the cost of capital may have a material effect on the concluded value of the subject taxable property.

Variations in the cost of capital often result from differing assessments and estimations of risk. One factor that may be considered in the estimation of the cost of capital is an adjustment for debt and equity flotation costs.

Flotation costs are the security issuer's costs associated with the public sale—or the private placement—of either debt capital or equity capital. Flotation costs include the security offering manager fees, underwriting fees, brokerage and selling concessions, and other expenses related to the sale of debt or equity securities.

Analysts are often called on to perform flotation cost studies to estimate the flotation cost adjustment that may be appropriate in a specific taxing jurisdiction or to a specific taxpayer.

Consideration of a flotation cost adjustment may affect both (1) the taxpayer's cost of capital and (2) the value conclusion of the unit principle valuation.

The "flotation cost percentage" is often measured as the company's flotation costs calculated as a percentage of the total amount of the debt capital or the equity capital raised.

For example, let's assume that an industrial or commercial taxpayer issues $100 million of common equity in a public stock offering. Let's assume that the total offering manager fees, underwriting fees, and selling commission fees (i.e., the flotation costs) equal $2 million.

Based on these assumptions, the flotation costs calculated as a percentage of sale proceeds equals 2 percent (i.e., $2 million of flotation costs ÷ $100 million of the sale proceeds from the security offering).

Flotation cost percentages vary due to factors such as the following:

1. The size of the security offering
2. The date that the securities are offered for sale
3. The type of the securities offered
4. The characteristics of the entity offering the securities

5. The underwriter of the securities offering
6. Other factors

Given the variability in flotation costs and their potential effect on the property value conclusions, it is important that analysts understand the factors that affect flotation costs.

Components of Total Flotation Costs

Flotation costs include the security offering manager fees, underwriting fees, brokerage and selling concessions, and other expenses incurred in conjunction with the sale of debt or equity securities.

Underwriting fees often comprise a significant portion of the total flotation costs. Underwriting fees are the fees paid to investment bankers in connection with the issuance of securities.

The underwriter of an issuance of securities is typically an investment bank that receives a commission in return for:

1. pricing the securities and
2. assembling groups of buyers.

Underwriting fees are often referred to as the "gross spread" or "underwriting discount." Underwriting fees may comprise a significant portion of the total flotation costs.

Underwriter credibility and name recognition may be particularly important to maximize the value of a securities offering. The selection of a prominent underwriter may positively influence underwriting fees.[1]

Fees and expenses related to initial public offerings in the United States increased after the Sarbanes-Oxley Act (the "Act") was enacted in 2002. The Act was enacted to improve financial disclosures and increase transparency and accountability of publicly traded companies. However, the Act resulted in substantial costs associated with meeting the regulatory requirements.

One published study concluded an increase in the cost of going public was associated with the enactment of the Act. This Kaserer, Mettler, and Obernberger study concluded, "This increase is almost entirely due to an increase in accounting and legal fees, while the underwriting fees are almost unaffected by [the Act]."[2]

The Kaserer, Mettler, and Obernberger study also stated, "We show that the increase in flotation costs is to a large extent an increase in fixed costs."[3]

Flotation Costs in the Property Taxation Context

Flotation costs are often considered in property tax valuations, particularly with regard to unit principle valuations of utility-type properties. The cost of capital in unit principle valuations may be derived through an analysis of publicly traded securities transactions.

However, there are a number of underlying differences between (1) publicly traded securities transactions and (2) tangible property transactions.

Analysts need to consider these transactional differences. Some of these differences are presented in Exhibit 1.[4]

Adjusting the cost of capital for flotation costs in unit principle valuations can mitigate some of the underlying investment attribute differences between publicly traded securities and tangible property.

According to Pratt and Grabowski, "Another type of adjustment applied in certain states is a flotation cost adjustment. This adjustment recognizes that the cost of capital for an illiquid taxable property is greater than the cost of capital for public companies."[5]

Before making a flotation cost adjustment, analysts should consider the level of risk assessed through the cost of capital prior to a flotation cost adjustment. Analysts should also consider if a flotation cost adjustment would accurately reflect the risk of the subject taxable property. This is because flotation cost adjustments to the cost of capital may have a material impact on the concluded value of the subject taxable property.

Consideration of a flotation cost adjustment to the cost of capital is a recognized procedure discussed in property valuation texts.

For example, *Property Assessment Valuation* published by the International Association of Assessing Officers explains, "The discount rate, also known as the overall yield rate [Y_0], is the weighted average cost of capital for a particular investment and incudes the costs associated with issuing debt and equity."[6]

The Ibbotson SBBI *2013 Valuation Yearbook* also discusses the adjustment for flotation costs in the context of rate setting for regulated utilities.

According to Ibbotson, "Although the cost of capital estimation techniques set forth in this book are applicable to rate setting, certain adjustments may be necessary. One such adjustment is for flotation costs (amounts that must be paid to underwriters by the issuer to attract and retain capital)."[7]

Exhibit 1
Differences between Public Securities Transactions and Tangible Property Transactions

Public Securities Transactions	Tangible Property Transactions
1. Generally homogenous properties that are competing for investment funds	1. Substantially heterogeneous properties competing for investment funds
2. Large number of buyers and sellers	2. Few buyers and sellers in any one price range
3. Relatively predictable, stable, and low transaction prices	3. Relatively unpredictable and high transaction prices
4. Relatively few government restrictions on secondary market participants	4. Secondary market participants and transactions subject to regulations, registration, and legislation at all levels
5. Fairly balanced supply of—and demand for—the subject properties	5. Volatile demand for, and sluggish supply of, the subject properties

While many analysts agree that flotation costs are appropriate to include in the cost of capital used in unit principle valuations, this adjustment is not universally accepted. Some analysts believe that by including a flotation cost adjustment, the analyst incorrectly relies on the source of funds rather than on the risk of the subject taxable property.

Additionally, some analysts believe that a flotation cost adjustment incorrectly equates the opportunity cost of capital with the allowed rate of return on invested capital.[8]

The analyst should, therefore, consider the level of risk assessed through the cost of capital prior to a flotation cost adjustment in order to assess whether a flotation cost adjustment would accurately reflect the risk of the subject taxable property.

Consideration of Flotation Costs by Taxing Authorities

Taxing authorities may espouse differing views with regard to a flotation cost adjustment to the cost of capital in unit principle valuations.

The Western States Association of Tax Administrators Committee on Centrally Assessed Property *Appraisal Handbook* (the "WSATA Handbook") states, "There really is no disagreement that there are costs associated with the issuance of stock and debt, the issue is whether it should be reflected in the capitalization rate. Flotation costs are not part of the opportunity cost of capital. . . . Flotation costs should be treated as incremental (negative) cash flows; they do not increase the required rate of return. Flotation costs are the result of a financing decision and are a cost of doing business but do not affect the opportunity cost of capital."[9]

However, the view stated in the WSATA Handbook, that flotation costs should be excluded from the cost of capital, is not uniformly held by all taxing jurisdictions, even in the western United States.

Many state tax assessment authorities prepare publicly disclosed annual capitalization rate studies that include discussion of flotation cost adjustments. State tax assessment authorities often consider input from taxpayers and analysts as a part of the development of these capitalization rate studies.

The following discussion summarizes five selected state capitalization rate studies. These five capitalization rate studies conclude an estimated capitalization rate promulgated by the state taxing authorities. The results of these studies may (or may not) be upheld in litigation.

California

The *2016 Capitalization Rate Study by the California State Board of Equalization* (the "California Study") considered flotation costs in the estimation of the cost of capital for the state's major industry groups.

The California Study explains, "Flotation costs effectively reduce the net proceeds that a firm will

receive from issuing securities. The cost of capital is adjusted upward to reflect the expected flotation costs incurred to issue securities."[10]

The formula used in the California Study to adjust the cost of capital for flotation costs is as follows:

Cost of Capital Adjusted for Flotation Costs =

$$\frac{k_u}{1-f}$$

where:

k_u = Cost of capital unadjusted for flotation costs

f = Flotation cost as a percentage of the value of securities issued

The California Study also notes, "Since the flotation costs are reflected in the weighted average cost of capital, the flotation costs should not be allowed as expenses in projecting cash flows to be capitalized."[11]

In other words, an adjustment for flotation costs can be reflected in either (1) the cost of capital or (2) the expected cash flow—but not in both valuation variables.

Nevada

The *Nevada Department of Taxation Capitalization Rate Study Calendar Year 2015* (the "Nevada Study," latest available) included a flotation cost adjustment in its estimation of the cost of debt, common equity, and preferred equity for railroad, airline, electric, natural gas, and telecommunication property.

Similar to the California Study, the Nevada Study adjusted for flotation costs through a flotation cost multiplier. The flotation cost multiplier for the cost of debt and for the cost of preferred equity was "obtained by dividing 1 by 1 minus the flotation cost."[12]

The flotation cost of common equity was calculated using the following formula:

$$K = \frac{D}{P(1-f)} + g$$

where:

K = Cost of common equity adjusted for flotation costs

D/P = Dividend yield

f = Flotation cost percentage

g = Growth rate

Wyoming

The *Wyoming Department of Revenue 2016 Capitalization Rate Study* (the "Wyoming Study") adjusted the concluded capitalization rates to include flotation costs.[13]

The Wyoming Study estimated capitalization rates for airlines, communication companies, railroads, electric companies, and natural gas pipelines.

The Wyoming Study did not indicate the formula used to adjust the cost of capital for flotation costs.

Minnesota

The *Minnesota Department of Revenue 2016 Capitalization Rate Study, Revised* (the "Minnesota Study") did not include flotation costs in its estimations of the cost of capital for utility, pipeline, and railroad operating property.

The Minnesota Study notes, "The yield rate and direct rate are not recovery mechanisms for the costs of doing business. Flotation cost adjustments were not made to the yield rate or direct rate in this study."[14]

Oklahoma

The *Oklahoma Tax Commission Capitalization Rate Study* (the "Oklahoma Study") estimated capitalization rates for the airline, electric, natural gas, railroad, telecommunications, and water industries.

Similar to the Minnesota Study, the Oklahoma Study did not adjust the concluded capitalization rates for debt or equity flotation costs.

The Oklahoma Study states, "Financial theory suggests and evidence supports that firms do not typically issue new common equity as a matter of common practice. Therefore in determining a capitalization rate, no adjustment will be made in the capitalization rate or the income stream for hypothetical flotation costs. Flotation costs actually incurred may be accounted for in the income stream."[15]

Summary of State Capitalization Rate Studies

As indicated in the five capitalization rate studies summarized above, consideration of flotation costs

"[I]t is important to reflect the [flotation cost] adjustment in either the taxpayer cost of capital capitalization rate or the expected cash flow, but not in both valuation variables."

in the cost of capital may vary from state to state. These five capitalization rate studies demonstrate the varied perspectives with regard to consideration of flotation cost adjustments to the cost of capital.

A taxpayer may benefit from reviewing the appropriate state capitalization rate study to understand if—and how—the state tax assessment authority adjusts the cost of capital for flotation costs.

If a flotation cost adjustment is allowed by the subject taxing authority, it is important to reflect the adjustment in either the taxpayer cost of capital capitalization rate or the expected cash flow, but not in both valuation variables.

Flotation Cost Percentage Trends

Three studies that analyzed the historical trends in flotation cost percentage trends are summarized below. All three of these studies were performed with regard to the flotation costs of securities offered through initial public offerings ("IPOs").

A comprehensive flotation cost study may not be limited to IPOs, which may have higher flotation costs than secondary security offerings.

The studies summarized below are presented to illustrate general trends in flotation costs. These studies may not be appropriate in a specific taxing jurisdiction or to a specific taxpayer property owner.

Flotation Cost Percentage and IPO Size

The first study summarized was a study published in 1987 by Jay Ritter (the "Ritter Study"). The Ritter Study analyzed the relationship between IPO size and the IPO flotation cost percentage and whether flotation cost percentages may be affected by economies of scale.

That is, flotation costs may not increase at the same rate as increases in the amount of debt or equity securities offered for sale. Some of the costs associated with the sale of debt or equity securities may be relatively fixed, such as legal expenses.

The Ritter Study noted an inverse relationship between IPO gross proceeds and total IPO-related cash expenses (i.e., flotation costs). The Ritter Study was performed for two types of investment banking contracts:

1. Firm commitment IPO offers
2. Best efforts IPO offers

In a firm commitment IPO offer contract, after a final prospectus is issued, investment banks guarantee to deliver proceeds (net of commissions) to the issuing firm regardless of whether or not the offer is fully subscribed. In a best efforts IPO offer contract, the issuing firm and investment bank agree to an offer price and a minimum and maximum number of shares to be sold.

If the minimum number of shares are not sold within a specified period of time, the offer is withdrawn, the investors' money is refunded, and the issuing firm doesn't receive any money.

The results of the Ritter study are presented in Exhibit 2.

As presented in Exhibit 2, the Ritter Study indicates an inverse relationship between IPO gross proceeds and flotation costs. That is, as the amount of gross proceeds increase, the percentage of flotation costs decrease.

The second study summarized was a study published in 2012 by PricewaterhouseCoopers LLP (the "PwC Study"). The PwC Study noted an inverse correlation between IPO gross proceeds and the underwriter discount as a percentage of gross proceeds.

This study is summarized in Exhibit 3.

The Ritter Study and the PWC Study indicate that as IPO gross proceeds increase, underwriter fees and other flotation costs generally decrease.

Secondary issuances of securities have similar cost structures to IPOs. The results of these studies are, therefore, generally indicative of the flotation cost trends for the issuance of primary and secondary securities.

Historical Flotation Cost Percentages

Flotation cost percentages have not remained constant over time. In fact, there has been a generally decreasing trend in flotation cost percentages. This is because flotation cost percentages are sensitive to changes within the financial industry, such as technological changes, regulatory changes, and the level of competition in the investment underwriting industry.

Exhibit 2
Ritter Study regarding the Costs of an IPO

IPO Gross Proceeds [a] ($000)	Number of Transactions Considered	Underwriting Price Discount [b] (%)	Other Flotation Costs [c] (%)	Total IPO-Related Cash Expenses (%)
		Firm Commitment IPO Offers		
100–1,999	68	9.84	9.64	19.48
2,000–3,999	165	9.83	7.60	17.43
4,000–5,999	133	9.10	5.67	14.77
6,000–9,999	122	8.03	4.31	12.34
10,000–120,175	176	7.24	2.10	9.34
All Offers	664	8.67	5.36	14.03
		Best Efforts IPO Offers		
100–1,999	175	10.63	9.52	20.15
2,000–3,999	146	10.00	6.21	16.21
4,000–5,999	23	9.86	3.71	13.57
6,000–9,999	15	9.80	3.42	13.22
10,000–120,175	5	8.03	2.40	10.43
All Offers	364	10.26	7.48	17.74

[a] Gross proceeds categories are nominal; no price level adjustments were made.
[b] The underwriting discount is the commission paid by the issuing firm.
[c] Other flotation costs include legal fees, printing costs, and other flotation costs. None of the expense categories include the value of warrants granted to the underwriter, a practice that is common with best efforts offers.
Source: Jay R. Ritter, "The Costs of Going Public," *Journal of Financial Economics* 19, no. 2 (January 1987): 269–272.

In fact, in 2000, Ritter noted that decreases in flotation cost percentages were affected by the following:

1. Competition between commercial banks and investment banks for investment underwriting contracts
2. Changes in technology with the innovation of the Internet and online investment underwriting resources.[16]

Historical trends in flotation costs related to IPOs are summarized in a second study published in 2016 by Ritter (the "2016 Ritter Study").

The results of this study are summarized in Exhibit 4 on the next page.

As indicated in Exhibit 4, the mean gross spread generally decreased from a high of 8.1 percent in 1982 to 6.7 percent in 2015.

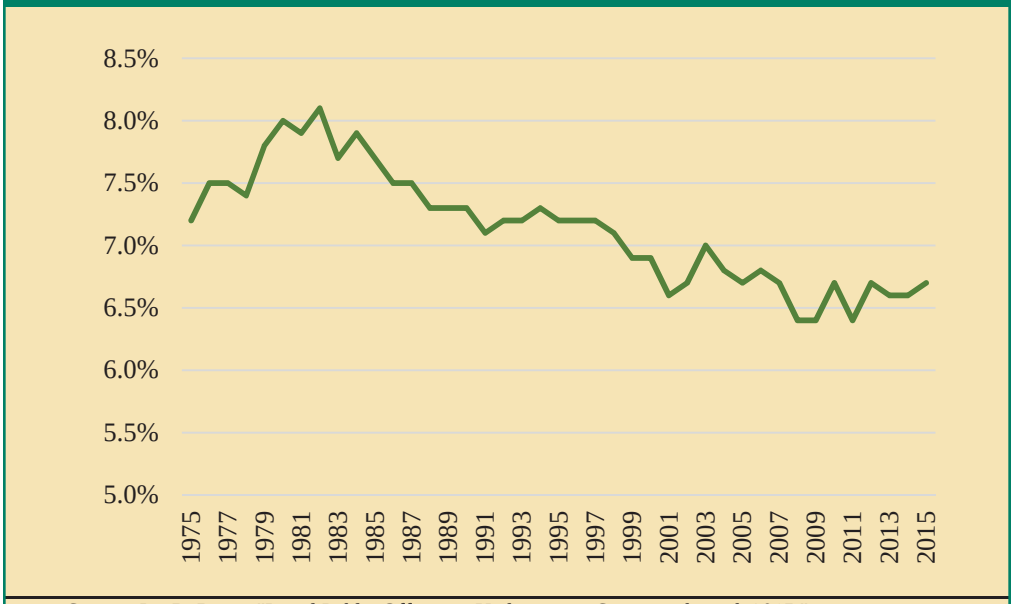
While IPO flotation costs are likely higher than flotation costs for the secondary issuances of securities, the results of this study are generally indicative

Exhibit 3
PricewaterhouseCoopers Study regarding the Costs of an IPO

Gross Proceeds ($Millions)	Number of IPOs	Underwriter Discount (%)
0-50	41	6.9
51-100	115	6.8
101-200	115	6.6
201-300	45	6.3
301+	73	5.5

Source: Martyn Curragh, Henri Leveque, and Neil Dhar, et al., "Considering an IPO? The Costs of Going and Being Public May Surprise You," PricewaterhouseCoopers LLP (September 2012), http://www.strategyand.pwc.com/media/file/Strategyand_Considering-an-IPO.pdf (accessed March 29, 2017).

Exhibit 4
2016 Ritter Study
The Mean IPO Gross Spread



Source: Jay R. Ritter, "Initial Public Offerings: Underwriting Statistics through 2015," University of Florida, March 8, 2016.

of historical flotation cost trends for all security issuances.

Application of Flotation Cost Adjustments

An adjustment to the cost of capital for flotation costs can have a significant effect on the concluded value of the subject taxpayer tangible property. Let's consider the following analysis for a hypothetical taxpayer, Natural Gas Distribution Company ("NGDC"). NGDC is located in California.

The analyst has determined that a flotation cost adjustment would accurately reflect the risk associated with the illiquid subject taxable property. Exhibit 5 summarizes the effect of a flotation cost adjustment on the value indication of the income approach, direct capitalization method.

As presented in Exhibit 5, adjusting the NGDC cost of capital for flotation costs decreases the indicated total unit value by $22 million.

Flotation cost adjustments to the cost of capital may also affect (1) the level of economic obsolescence cost in the cost approach analysis and (2) the intangible asset value encompassed in a unit principle valuation of taxable property.

For example, an adjustment to the cost of capital for flotation costs may affect the indicated level of economic obsolescence. One method to estimate the level of economic obsolescence is the capitalization of income loss method. In this method, the analyst compares:

1. the cost of capital to
2. the actual return on assets.[17]

An increase in the cost of capital for flotation costs could, therefore, increase the indicated level of economic obsolescence.

The intangible asset component of the taxpayer unit of total operating property may also be affected by a flotation cost adjustment. Intangible assets are often encompassed in the unit principle valuation conclusion.

In a unit principle valuation, the intangible asset value may be subtracted from the total unit income approach and market approach value indications, where appropriate. The cost of capital is often used to estimate the entrepreneurial incentive required to develop intangible assets.[18]

An adjustment to the cost of capital for flotation costs may therefore affect the concluded intangible asset value in a unit principle valuation.

Developing a Credible Flotation Cost Study

In order to develop a credible flotation cost study, it is important for the analyst to understand the factors that influence the level of flotation costs.

Flotation cost percentages may vary significantly and may correlate to the following factors:

- Size and date the securities are offered for sale
- The type of securities offered
- The characteristics of the firm offering the securities
- The underwriter
- Other factors

Several databases are available to provide flotation cost data to analysts. These databases include Bloomberg and Thomson ONE.

Exhibit 5
Hypothetical Taxpayer Natural Gas Distribution Company
Income Approach, Direct Capitalization Method
Value Summary with and without Flotation Cost Adjustment

Estimation of Unadjusted Direct Capitalization Rate		
Estimated Cost of Equity Capital	10.0%	
Multiplied by: Equity/Invested Capital	50.0%	
Equals: Weighted Cost of Equity Capital		5.0%
Estimated Cost of Debt Capital	3.5%	
Multiplied by: Debt/Invested Capital	50.0%	
Equals: Weighted Cost of Debt Capital		1.8%
Indicated Yield Capitalization Rate		6.8%
Less: Expected Long-Term Growth Rate		0.0%
Direct Capitalization Rate		6.8%

Adjustments for Flotation Costs	
Unadjusted Cost of Equity	10.0%
Equity Flotation Cost Percentage	3.0%
Adjusted Cost of Equity [a]	10.3%
Unadjusted Cost of Debt	3.5%
Debt Flotation Cost Percentage	0.5%
Adjusted Cost of Debt [a]	3.5%

Estimation of Adjusted Direct Capitalization Rate		
Estimated Cost of Equity Capital	10.3%	
Multiplied by: Equity/Invested Capital	50.0%	
Equals: Weighted Cost of Equity Capital		5.2%
Estimated Cost of Debt Capital	3.5%	
Multiplied by: Debt/Invested Capital	50.0%	
Equals: Weighted Cost of Debt Capital		1.8%
Indicated Yield Capitalization Rate		6.9%
Less: Expected Long-Term Growth Rate		0.0%
Direct Capitalization Rate		6.9%

Unit Principle Valuaiton Income Approach Direct Capitalization Method ($000s)	Scenario Using Unadjusted Direct Capitalization Rate	Scenario Using Adjusted Direct Capitalization Rate
Net Operating Cash Flow	100,000	100,000
Divided by: Direct Capitalization Rate	6.8%	6.9%
Equals: Indicated Fair Market Value of Total Unit of Operating Assets (rounded)	1,471,000	1,449,000
Less: Intangible Asset Value	(400,000)	(400,000)
Equals: Indicated Tangible Asset Value	1,071,000	1,049,000
	Difference of $22 Million	

[a] In this example, the formula used to estimate the flotation cost adjustment is the formula specified in the 2016 California Study of:

$$\frac{k_u}{1-f}$$

Bloomberg is an online database that provides financial information on:

1. nearly all active and inactive U.S. publicly traded companies and
2. active and inactive international companies.

Debt, common equity, and preferred equity securities may be searched by numerous criteria including size, date, industry sectors, and Standard Industrial Classification ("SIC") codes.

The information in this database is updated frequently. More information is available at www.bloomberg.com/professional/.

Thomson ONE is an online database that provides financial information on approximately 52,000 public companies and over one million private companies. Debt, common equity, and preferred equity securities may be searched by numerous criteria including size, date, Global Industry Classification Standard codes, and SIC codes.

The information in this database is updated frequently. More information is available at http://thomsonreuters.com.

Analysts can search these databases based on numerous criteria to identify public issues of debt, common equity, or preferred equity of companies that are sufficiently comparable to the subject taxpayer company.

For example, let's consider a flotation cost study performed to assist a taxpayer railroad owner/operator in determining its cost of capital. For this study, the analyst may exclude debt offerings from security issuers (i.e., debtors) that primarily operate in the finance or real estate industries.

Debt offerings from the finance and real estate industries may be excluded. This is because companies in these industries operate under a different (and somewhat unique) regulatory environment compared to companies that operate in other industries.

Analysts may have to balance:

1. narrow criteria that identify only debt or equity offerings for companies with a high degree of comparability to the subject taxpayer with
2. the need for a statistically significant number of data points.

This balance may require significant analyst experience and professional judgement.

After screening a database using the above-mentioned factors, the analyst should carefully review the indicated results for flotation cost data that do not fit the analyst's screening criteria. By reviewing the security offering prospectuses filed with the Securities and Exchange Commission, the analyst can verify that the indicated securities offerings are relevant to the subject flotation cost study.

After screening and verifying the flotation cost data, the analyst should then compile the data in a useful format. The analyst may identify meaningful estimations of the flotation cost percentage for the subject tangible property by selecting an indicator of central tendency from the compiled data.

Lastly, a credible flotation cost study should be well documented and should provide a thorough discussion of the procedures that the analyst applied to develop the flotation cost analysis.

Conclusion

Consideration of flotation costs in the cost of capital of unit principle valuations may be a contentious issue between taxing authorities and taxpayer property owners. This is because small variations in the cost of capital may result in material changes in the concluded value of the subject taxable property.

Many factors affect flotation cost percentages. These factors include the following:

1. The size of the security offering
2. The date that the securities are offered for sale
3. The type of securities offered
4. The characteristics of the entity offering the securities
5. The underwriter of the securities offering
6. Other factors.

Before making a flotation cost adjustment, the analyst should consider the level of risk assessed through the cost of capital prior to a flotation cost adjustment.

And, the analyst should consider if a flotation cost adjustment would accurately reflect the risk of the subject taxable property.

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The Continuing Conundrum of How to Exclude Goodwill in Unitary Property Taxation—and a Proposed Solution

Richard G. Smith, Esq.

The exclusion of tax-exempt goodwill from the assessed value of taxable property is a vexing problem for tax administrators and for the taxpayer companies that seek such exemptions. This is particularly the case for taxpayer companies that (1) report goodwill on their financial statements and (2) are subject to property taxation by state taxing authorities based on the value of the "unit" of property used in a business operation conducted within the taxing state. This discussion analyzes the issues involved in the identification and valuation of goodwill, considers alternatives for implementing the exemption of goodwill in a unit principle valuation, and recommends a practice for excluding goodwill that is based on a method recognized and endorsed by the appraisal guidance used by tax administrators.

Introduction

The valuation of goodwill is a recurring issue in property tax cases involving industrial and commercial taxpayers that are valued using the "unit method." That unit valuation principle is based on the premise that the value of an operating "unit" of property is greater than the sum of its parts.

When the income approach is used in a unit principle valuation, the unit income will generally include income from the entire business enterprise, not simply from the taxable assets.

As such, to the extent there are earnings attributable to assets that are exempt from taxation, including the intangible assets that are exempt in most taxing jurisdictions, the value of those exempt assets will be included in the income approach value indication.

Similarly, when the market approach is used in a unit principle valuation, and market value is determined by reference to comparable properties, the market approach value indication will include the value of whatever exempt assets are included in the sample of comparable properties.

The cost approach more clearly segregates tangible assets from intangible assets. And, the cost approach is the only generally accepted property valuation approach to assure that intangible property will not be included in the taxable value.

In a previous discussion, this author suggested that where the taxpayer owns substantial intangible property and where the use of the cost approach is practicable, appraisers use only that approach.[1]

Some states follow that practice, especially for certain industries where intangible property is a significant part of the total unit of operating property.

This discussion explores the logic of an alternative:

1. If the appraiser uses the cost approach and one or more other valuation approaches, then the appraiser should deduct the value of intangible property after the reconciliation of the various approaches into a final unit value.
2. In the goodwill deduction, the appraiser should use a market-book ratio based on the accounting "book value" of goodwill.

This proposal is not original to this discussion. It is recommended by at least two appraisal sources relied on by state assessors, and its adoption would represent a compromise of sorts. Where goodwill exists, the amount of goodwill recorded on the taxpayer's books is likely to be only a portion of the total goodwill. Accordingly, if taxpayers are willing to accept such a limited exemption, taxing authorities should be satisfied.

Background

It has long been the practice of states to value certain types of companies using the "unit" valuation principle.[2]

The unit valuation principle traces its roots to the 19th century. The logic of the unit valuation principle, and the "sum of the parts" rationale, was described by the U.S. Supreme Court in the *Adams Express* case.

The issue in that case was whether it was constitutional to include intangible assets as part of the taxable value, and the court accepted the argument that the whole is greater than the sum of the parts, as follows:

> Now, whenever separate articles of tangible property are joined together, not simply by a unity of ownership, but in a unity of use, there is not infrequently developed a property, intangible though it may be, which in value exceeds the aggregate of the value of the separate pieces of tangible property. Upon what theory of substantial right can it be adjudged that the value of this intangible property must be excluded from the tax lists, and the only property placed thereon be the separate pieces of tangible property?[3]

Companies that are valued for property tax purposes using the unit valuation principle are typically public utilities like electric, gas and water transmission and distribution companies, telephone companies, railroads, and airlines.

Because utility-type property usually crosses many local government boundaries, the unit principle valuation of utilities is generally performed on a "central assessment" basis by the state's department of revenue.

State tax authority appraisers typically use one or more of the three property valuation approaches to determine the taxpayer "unit" value—cost approach, income approach, and market approach.

By its nature, the cost approach derives the value of the individual tangible property of the subject unit, although adjustments for functional and economic obsolescence often are made at the system or unit level.

After estimating separate value indications for the subject unit property using the cost, income, or market approaches, the appraiser "correlates" or "reconciles" these value indications into a single value conclusion—after considering the strengths and weaknesses of each valuation approach.

States began using the unit valuation principle when a larger share of property ownership in this country was tangible real property or tangible personal property. In the 20th century, however, there was a significant increase in the value of intangible property, and such intangible property represents an ever-increasing proportion of the nation's wealth.[4]

As a result, and perhaps because intangible property is difficult to value, states began enacting property tax exemptions for intangible property. Most states now have such intangible property exemptions.[5]

Recurring Issues in the Deduction of Intangible Property and Goodwill

There have been a number of important cases over the last 50 years addressing whether and how intangible property value should be deducted from a total unit value. And, it is helpful to discuss those cases briefly here.

Two California cases set the stage for development of the principles important to the analysis of intangible asset exclusion in unit valuations.

In *Roehm v. County of Orange*[6] and *ITT World Communications v. County of Santa Clara*,[7] the California Supreme Court addressed the applicable constitutional and statutory provisions covering the exemption of intangible property.

In *Roehm*, the court held that a liquor license was an intangible asset not subject to taxation, no more than other forms of governmental permits, stock exchange seats, memberships, goodwill, and other assets "which have never been taxed as property in this state during its entire existence."

However, the *Rodhm* court introduced confusion with the following statement: "Intangible values, however, that cannot separately be taxed as property may be reflected in the valuation of taxable property."[8]

In *ITT World Communications*, the court rejected the taxpayer's argument that value should be measured exclusively by the cost approach in order to exclude intangible property value. The court endorsed the idea suggested in *Roehm* that although intangible property cannot be taxed directly, it could be taxed indirectly:

> Although Appellant's franchise cannot be assessed and directly subjected to property taxation, the assessment of its taxable property may take into account earnings from that property that depend upon Appellant's possession of the franchise.[9]

Tax authorities probably read too much into this analysis. The franchise asset addressed in that case might not have its own identifiable value; the franchise is more like a permit that allows the activity and is necessary to the use of an asset at its highest and best use. But for assets that can be valued, these cases did not support the notion that intangible assets can be valued indirectly.

That principle was made clear in *GTE Sprint Communications Corp. v. County of Alameda*, where the court held that although the unit value may be enhanced by the presence of intangible property, the statutory exemption requires that the value of the intangible property must be excluded from the unit value.[10]

In contrast, with respect to goodwill specifically, the Utah Supreme Court in *Beaver County v. WilTel* held that for a telecommunications company, it was not necessary to exclude the increment of value that represents the difference between:

1. the tangible property value standing alone and
2. the business enterprise value of the entire unit.[11]

The court likened this goodwill value to the assemblage value concept in real estate appraisal, where the process of assembling disparate properties into an operating system creates an attribute, similar to location, which enhances the value of the unit and does not require exclusion as a separate intangible asset.

The court in *WilTel* went too far in suggesting that goodwill is part of the enhancement of the tangible assets, a conclusion that is clear from a subsequent Utah case, *T-Mobile USA, Inc. v. Utah State Tax Commission*.[12]

In *T-Mobile*, the Utah State Tax Commission had used a historical cost method to value the taxpayer corporation tangible assets but had allocated part of the book value of goodwill to the taxable assets, presumably under the authority of *WilTel* and in an effort to add an assemblage value enhancement to the tangible asset value.

The court held the Commission's allocation of accounting goodwill in this manner was improper because accounting goodwill is intangible property that cannot be taxed consistent with the Utah Constitution. It rejected the argument that "accounting goodwill falls within the definition of tangible enhancement value because it captures the 'synergy value' of the company's net assets working together as a unit."[13]

The court reasoned that "synergy value" and "customer base value" could be considered part of accounting goodwill, which is exempt. Finally, it agreed with the trial court's analysis that "to the extent T-Mobile's goodwill account included enhancement value, that value would be captured through the valuation of the tangible property itself."

This analysis seems to beg the question of whether there was any taxable enhancement in the tangible property as determined in the property appraisals.

The Supreme Court avoided that question by holding that in this case, it was appropriate to rely on only the cost approach appraisal. The use of the unit valuation principle was not mandatory.

Other cases have concluded that the task of extracting intangible value is so challenging that unit valuation approaches—such as the income and market approaches—should not be used. In *Heritage Cablevision v. Board of Review*,[14] the Iowa Supreme Court affirmed the rejection by the district court of a market approach valuation method that included intangible asset value.

The court rejected the use of the market approach, because while that method may be appropriate to determine the value of the business enterprise, it "necessarily includes nontaxable assets such as a franchise to operate, an established customer base, experienced personnel in place, goodwill, and other intangibles."[15]

In another Iowa case, *Post–Newsweek Cable, Inc. v. Board of Review*,[16] the Supreme Court rejected the income approach for unit valuation, noting the following:

> Tremendous profits and a monopolistic status do not, however, justify taxation of intangibles. The income approach—which capitalizes earnings—measures the value of a business entity, not the value of individual taxable assets of that entity. This calculation necessarily values intangibles. (p. 816)

In a Florida case, *GTE Florida, Inc. v. Todora*,[17] the appellate court criticized the use of both the income approach and market approach for including the value of intangible property. And, quoting the Florida Supreme Court in *Havill v. Scripps Howard Cable Co.*, the court found: "From the single value arrived at by the income approach, it is virtually impossible to segregate specific items and identify their values. Thus, it is unlikely that the value of intangible assets and other nontaxable items can be subtracted in a nonarbitrary fashion to reveal the just valuation of the tangible personal property."[18]

The court then applied the same analysis to the market approach.

As a result, in Iowa and Florida, only the cost approach is used to determine the assessed value of tangible property for many companies. The cost approach has the advantage of allowing the appraiser to focus solely on the tangible asset values.

The California Board of Equalization also has relied on cost approach valuation methods in the valuations of telecommunications property. This is because of the high concentration of intangible property in that industry.

Some states have eliminated or limited the unit approach by statute or by rule (e.g., Arizona, Nebraska, Minnesota [for telecommunications companies], and Virginia). Other states have shifted to a gross receipts tax for centrally assessed taxpayers, avoiding entirely the complex valuation issues associated with large and complex businesses (e.g., North Dakota, South Dakota, and for many industries in Iowa).

Issues regarding How to Extract Intangible Property and Goodwill Value

The foregoing cases present two extremes on how to handle the difficulties of extracting the value of intangible property from the total unit value. The assessing authorities argued that goodwill in particular does not need to be deducted at all. This is because goodwill represents "enhancement" to the value of the taxable assets.

The courts in some jurisdictions held that the difficulties in deducting intangible property values makes the use of the income approach and market approach impracticable. In between these two extremes are the states that:

1. acknowledge the goal of extracting intangible asset value and
2. develop the standards for doing so.

One set of standards that is very restrictive is contained in a controversial valuation handbook published by the Western States Association of Tax Administrators ("WSATA"), a group of centrally assessed tax administrators in 13 western states.[19]

The WSATA handbook includes views on appraisal principles, and has endorsed certain methods, that are contentious and that even its own members do not generally apply or give much consideration to (such as the direct capitalization income approach and stock and debt variation of the market approach).

One set of principles advanced in the WSATA handbook concerns a definition of intangible property for purposes of extracting intangible property value from the total unit value. The WSATA handbook explains that for an intangible asset to qualify for deduction from the total unit value, "it must be capable of being sold separately and apart from the unit."[20]

According to the WSATA handbook, goodwill is an intangible asset that is not separable from the operating unit. Indeed, the WSATA handbook describes goodwill as being in a category of assets that "do not have a separate, independent property existence e.g., goodwill, enterprise value."[21]

The WSATA handbook was the basis for rules promulgated in two states that limited the intangible

property exemption, particularly with reference to goodwill. Those rules were recently challenged in—and declared invalid by—the courts.

In Montana, the relevant exemption statute exempts "intangible personal property," and defines that term as property "that has no intrinsic value but is the representative of value," or "property that lacks physical existence, including goodwill."[22] The statute then provides a nonexhaustive list of property that meets that definition: "certificates of stock, bonds, promissory notes, licenses, copyrights, patents, trademarks, contracts, software, and franchises."

The Montana Department of Revenue promulgated a rule that adopted the WSATA handbook approach for limiting the scope of intangible property exemptions. That rule required that in order to qualify as exempt intangible property, the intangible property must be capable of ownership and "must be able to be bought and sold, separate from the unit of operating assets, without causing harm, destroying, or otherwise impairing the value of the unit of assets being valued through the appraisal process."

The Montana rule allowed the book value of goodwill as an exemption in the cost approach, but it included other restrictions that effectively excluded goodwill from the exemption in any other unit principle valuation approach. Those restrictions included the directive that the "ability to make excess revenues over the normal rate of return" represents intangible value, not intangible property.[23]

In *Gold Creek Cellular of Montana dba Verizon Wireless and AT&T Mobility v. Department of Revenue*,[24] the Montana Supreme Court had little difficulty holding that this definition of intangible personal property exceeded the Department's rulemaking authority—which is to promulgate rules consistent with the statute. The court rejected the "separability" requirement as inconsistent with the statute, which includes property that cannot be separated from the unit and yet is listed in the statute as exempt.

With respect to goodwill specifically, the court noted that "the Department's distinction between intangible property and intangible value appears to sweep up goodwill, as goodwill is often defined by the ability to make excess revenues over the normal rate of return."[25]

The issues surrounding the exemption of goodwill were soon litigated again in connection with another rule adopted by the Department of Revenue of Washington. This rule also adopted the "separability" requirement. Much of the case centered on the argument that there was no need to exclude goodwill in any unit principle valuation approach other than the cost approach. This is because goodwill was not even "property," since it did not satisfy the separability requirements that the Washington Department of Revenue and the WSATA handbook believed were appropriate. The court disagreed.

As in Montana, the Washington courts recognize goodwill as a separate asset for many purposes. The court held that the "separability" limitation improperly created a subset of intangible assets—those which were separable from the unit, and those which were not.[26]

In both Montana and Washington, the Departments of Revenue excluded goodwill in the cost approach, but defended such treatment not because it was an exempt intangible asset, but because the book value of goodwill was not evidence of intangible property at all. Instead, goodwill was a residual of the purchase price allocation process in business acquisitions. That approach was rejected by the courts, which recognized that goodwill is an intangible asset in its own right.

However, the implicit recognition of goodwill as excludable in the cost approach, together with the courts' recognition that goodwill should be considered in all unit principle valuation approaches, sets the stage for a solution to the goodwill conundrum, as explained in the next section of this discussion.

Exclusion after Reconciliation—An Approach That Should Be Acceptable to All

If one accepts the premise that goodwill is appropriately measured in the cost approach for use in that approach, then a widely recognized technique exists to extend that valuation to the unit principle valuation as a whole. Even the guidance relied on by state property tax assessors recommends this technique.

Deduction of intangible assets after the reconciliation process is recommended both by the WSATA handbook and another resource relied on by state assessors—the valuation standards promulgated by the National Conference of Unit Valuation States ("NCUVS"). Both of these sources recommend this process rather than the valuation and deduction of intangible property in each individual approach.[27]

In other words, it is not necessary to consider how goodwill should be deducted from the cost approach, income approach, or market approach. Instead, the value indications from those valuation approaches should be "reconciled" into a single value

conclusion and then the value of goodwill should be deducted from that value conclusion. This process makes it unnecessary and inappropriate for a rule or policy precluding deduction of goodwill value from the income approach or the market approach.

A goodwill value amount is available from, and is used by, the state assessors for the cost approach. The guidance of the WSATA and NCUVS standards is that this cost approach value should be used as the deduction from the reconciled value.

A simple example helps to illustrate this point. Before considering exemptions, let's assume the assessor determines a tangible unit value in the cost approach of $1,000 and gives it a 50 percent weight.

The assessor estimates tangible unit values under the income approach and market approach of $800 in each, and gives each of those conclusions a 25 percent weight. After applying the math based on these weightings, the reconciled tangible unit value would be $900.[28]

Now, the assessor considers exempt goodwill. Assume the taxpayer has $200 of goodwill on its books. That $200 goodwill value can be deducted from the reconciled unit value of $900, to conclude a taxable unit value of $700.

The practice of some assessing authorities is effectively to allow the $200 goodwill deduction in the cost approach for a net cost approach value of $800, and allow no deductions to the $800 income approach or market approach values.

The WSATA handbook recommends a refinement of this process where the goodwill amount deducted from the reconciled subject unit value is adjusted to a market equivalent by using a market-book ratio.[29]

In this example, the reconciled unit value of $900 is compared to the cost approach unit value of $1,000, indicating a ratio of 90 percent. That 90 percent ratio is then applied to the book value of goodwill, to convert the book value of goodwill to the market value of goodwill.

That calculation would result in:

1. a deduction of $180 for goodwill ($200 × 90%) and
2. a taxable unit value of $720 ($900 – $180).

This refinement has the advantage of adjusting the book value of goodwill by a market-based ratio, so that the market value of goodwill has the same relationship to the book value of goodwill as the relationship of book value to market value for all other unit assets.

So why is this approach not acceptable to assessing authorities? The answer is apparently that they do not accept the premise that goodwill is correctly measured in the cost approach. Instead, they argue that the book value of goodwill is a residual value that does not reflect the value of what goodwill is intended to represent—the excess earning power of assets or of the business enterprise that is not reflected in the value of the taxable, tangible assets.

Addressing this argument requires an understanding of the economic nature of and legal basis for recognizing goodwill, and the equivalence of the book value of goodwill to this economic and legal concept.

A Defense of the Book Value of Goodwill as a Measure of Economic Goodwill

Where goodwill is recognized by the courts as a type of property worthy of legal protection, the courts are referring to what we commonly understand to be goodwill from an economic perspective.

For example, in *Friedlaender v. Commissioner*, the U.S. Tax Court stated that "the goodwill of a business is the potential of that business to realize earnings in excess of the amount which might be considered a normal return from the investment in the tangible assets."[30] In *Dixon v. Crawford, Peterson & Yelish*, the Washington court approved an excess earnings approach to value goodwill—"recognizing earnings not strictly attributable to the value of the work performed."[31] In *In re Marriage of Hull*, the Montana Supreme Court reached the same conclusion.[32]

The question, then, is whether the book value of goodwill represents the value of those excess earnings. To answer that question requires an understanding of how goodwill is determined for financial accounting purposes.

As most readers know, goodwill is generally recorded only in connection with a business combination, as part of the process of allocating the purchase price for the assets of an acquired business.

For companies with financial statements that comply with generally accepted accounting principles (which includes most state-assessed companies), the rules provide for a valuation of all tangible assets and identifiable intangible assets at "fair value," which for many purposes is analogous to fair market value.[33] The amount recorded as the book value of goodwill is the residual amount of the acquisition purchase price over the sum of the fair value of the acquired tangible and the fair value of the identifiable intangible assets.

Although some state assessors complain that this residual value does not represent any asset at all, much less goodwill, the complaint fails to recognize the effect of the valuation in the real-world practice of valuing companies in merger and acquisition transactions.

Consider, for example, the purchase of a target company for $1 billion. Assume the purchase price is determined based on the following:

1. The buyer's expectation that earnings will be $100 million per year
2. The buyer's discount rate, based on the market cost of capital for an investment of this risk, which is 10 percent.

A careful valuation is performed of all tangible assets and identifiable intangible assets, resulting in a total value of $900 million.

An implicit assumption from those asset valuations is that the target company assets will produce income of $90 million annually. If more than $90 million were expected, those assets would be worth more than $900 million.

Based on the market-required return, the $900 million in assets are expected to earn the cost of capital. That amount is $90 million, and anything more than $90 million would be excess earnings.

Thus, the extra $10 million in expected earnings must be produced from assets that are not included in the valuations of the tangible assets and identifiable intangible assets, and that are properly identified as goodwill.

The amount of goodwill determined in the purchase allocation process is a "residual" value. This is because the earnings from which the goodwill is derived are a residual—the extra or residual earnings available after providing a fair return to the other acquired assets.[34]

Goodwill determinations for financial statement purposes are important. If they are misstated, the company, its management, and even the independent auditors may be subject to suit.[35]

In addition to the care necessary in making purchase price allocations, accounting principles also require another procedure that is designed to assure the reliability of goodwill determinations and update them to account for changes.

Pursuant to the Financial Accounting Standards Board ("FASB") Accounting Standards Codification ("ASC") topic 350, a company must review its goodwill balances annually and adjust the book value of goodwill downward where there is a likelihood that the goodwill is "impaired."[36]

There are two features of the impairment process, and the accounting for goodwill in general, that should give state assessors comfort in relying on the book value of goodwill for post-reconciliation deductions using a market-book ratio.

First, goodwill may be written down, but goodwill is never written up. So if goodwill is impaired in one year and written down, but the business prospers thereafter, the goodwill amount will not be restored.

Second, the book value of goodwill reflects the excess price paid for acquired business assets, but not the acquiring business.

So, for example, if Verizon were to acquire T-Mobile, the book value of goodwill would reflect the excess purchase price associated with the acquired T-Mobile assets, but not the goodwill associated with the pre-acquisition Verizon assets.

Viewed in this light, one would expect that the book value of goodwill would almost always understate the actual economic goodwill of the taxpayer.

It is possible to argue that goodwill may include more than the present value of future excess earnings. However, any other explanations for the goodwill amount do not lead to the conclusion that the goodwill is taxable.

For instance, one commonly used explanation for goodwill is that it represents the present value of growth opportunities ("PVGO"). These are future investments which are expected to earn more than the cost of capital, and so have a positive net present value and increase the price a buyer would be willing to pay for a company.[37]

However, future assets are not subject to property taxation.[38] Even if this increment of value does not represent goodwill, it is still not a taxable asset.[39]

There are other arguments why the book value of goodwill is not a precise measurement of economic goodwill, such as the risk that when other assets are incorrectly valued in a purchase price allocation, it affects the amount of the purchase price booked to goodwill. However, the risk of error could be positive or negative, and valuations in any context are estimates subject to reasonable error.

The risks that the accounting book value of goodwill differs from economic goodwill, in a way that overstates the correct amount of exempt goodwill, seems low when one considers the two constraints on the accounting recognition of goodwill, noted above. Both of these requirements have the effect of understating the business unit's total goodwill:

1. that the book value of goodwill reflects only the acquired company's goodwill and

2. that the book value of goodwill is constantly being re-evaluated, and could be written down but not adjusted upward.

Given these directional constraints (always toward a lower book value of goodwill), state assessing authorities should consider it reasonable when a taxpayer seeks to exclude only the book value of goodwill.

Conclusion

Case law over the last 50 years has shown a steady recognition that intangible property in general—and goodwill in particular—are important parts of a company's portfolio of assets. Most states have enacted taxation exemptions for intangible property, usually including goodwill.

The appraisal guidance relied on by states (WSATA and NCUVS) recommend that tax-exempt assets should be deducted at the end of the unit principle valuation process, after the tangible asset value indications from the valuation approaches are reconciled into a final value.

It makes perfect sense to use the accounting book value of goodwill in that process, adjusting the recorded goodwill balance by a market-book ratio as recommended in the WSATA handbook.

Adoption of this goodwill recognition procedure would result in a fair resolution of the conundrum that continues to frustrate taxpayers and tax administrators.

Notes:

1. R. Smith, "Is the Unit Approach Viable? A Legal Perspective," *Journal of Property Tax Assessment and Administration* 10, no. 2 (2013).
2. *See generally* R. Smith, "Deducting Intangible Asset Value for Property Tax Purposes: How 'Necessary' Intangibles Are Treated in Two Recent Cases," *Insights* (Spring 2014): 62; R. Smith, "Is the Unit Approach Viable? A Legal Perspective," *Journal of Property Tax Assessment and Administration* 10, no. 2 (2013); R. Smith, "A Critique of 'Enhancement' and Other Theories for Taxing Intangibles," *Journal of Property Valuation and Taxation* 14 (Fall 2002).
3. Adams Express Co. v. Ohio State Auditor, 165 U.S. 194, 219-20 (1897), *aff'd after rehearing*, 166 U.S. 185, 218-20 (1897). *See also* State Railroad Tax Cases, 92 U.S. 575, 616 (1875).
4. This growth in the value of intangible property was well underway even in 1897, when the Supreme Court made the following observation in the Adams Express case: "In the complex civilization of today a large portion of the wealth of a community consists in intangible property, and there is nothing in the nature of things or in the limitations of the Federal Constitution which restrains a State from taxing at its real value such intangible property. . ." 166 U.S. at 218.
5. It is noteworthy that in the Adams Express case, the state of Ohio did not exempt intangible property, so the court's broad statements, about how it is logical to value and tax the economic value of a business enterprise, are now largely irrelevant.
6. 32 Cal. 2d 280, 196 P.2d 550 (Cal. 1948).
7. 101 Cal. App. 3d 246, 162 Cal. Rptr. 186 (1st Dist. 1980).
8. 2 Cal. 2d at 285 [emphasis added]. The court quoted commentators who had expressed the view that there were insurmountable problems in attempting to fairly value intangible property on a uniform basis, and also quoted from a California Tax Commission investigation that concluded that "[t]he taxation of such property at full valuation and at the full rate is an administrative impossibility and an ethical monstrosity." *Id*. at 288.
9. 101 Cal. App. 3d at 254 [emphasis added].
10. 32 Cal. Rptr. 2d 882 (Cal. Ct. App. 1994).
11. Beaver County v. WilTel, Inc., 995 P.2d 602, 611-12 (Utah 2000).
12. 254 P.3d 752 (2011).
13. T-Mobile, 254 P.3d at 764.
14. 457 N.W.2d 594 (Iowa 1990).
15. *Id*. at 598.
16. 497 N.W.2d 810 (1993).
17. 854 So.2d 731 (2003) (Fla. App. 2003).
18. *Id*. at 734, quoting Havill v. Scripps Howard Cable Co., 742 So.2d 210 (Fla. 1998).
19. *Appraisal Handbook, Unit Valuation of Centrally Assessed Properties*, Western States Association of Tax Administrators – Committee on Centrally Assessed Property (August 2009), VI-2.
20. *Id*., VI-4.
21. *Id*., VI-2.
22. MCA § 15-6-218.
23. Administrative Rules of Montana 42.22.101(12).
24. 310 P.3d 533 (2013).
25. *Id*. at 537.
26. AT&T Mobility vs. Thurston County et al, Order, Case No. 14-2-002804 (Thurston County Superior Court, Sept. 18, 2015). The decision of the court was not appealed.

27. The WSATA handbook states as follows: "Once a value for intangible property is determined, NCUVS standards state that it is properly removed from the unit valuation rather than from individual value indicators. The best practice is to remove the value of the tax-exempt intangible property from the allocated unit value of the state giving the exemption," VI-4. The NCUVS standards, published in October 2005, are available at www.NCUVS.org. With respect to this issue, standard VI(G) applies:

> G. When excluding exempt or locally assessed property from the unit, the following should be considered:
>
> 1. The exclusion should occur only after the unit value is determined.

28.

$1000 cost Approach	$800 Income Approach	$800 Market Approach
X .50 Weight	x.25 Weight	x.25 Weight
$500	$200	$200
Reconciled Unit Value	$500 +$200 +$200 = $900	

29. "One way to remove exempt intangible property is through a market to book ratio. In this method, it is assumed that all property contributes in equal amounts to the unit value. The book value of the exempt intangible item is multiplied by the market-to-book ratio of the entire unit, and that value is eliminated from the unit value." WSATA Handbook, VI-4.

30. 26 T.C. 1005, 1017 (1956). See also Copland v. Dep't of Taxation, 114 N.W.2d 585, 865 (Wis. 1962) (same).

31. 262 P.3d 108, 112 (Wash. App. 2011).

32. 712 P.2d 1317 (Mont. 1986)

33. Financial Accounting Standard Board, Statement No. 141.

34. The Utah Supreme Court in T-Mobile discussed the relationship between booked goodwill and economic goodwill. 254 P.3d at 760, note 12:

> We pause to note that the FASB definition of accounting goodwill is similar to the generally understood definition of "goodwill." Black's Law Dictionary defines "goodwill" as "a business's reputation, patronage, and other intangible assets that are considered when appraising the business, esp[ecially] for purchase; the ability to earn income in excess of the income that would be expected from the business viewed as a mere collection of assets." BLACK'S LAW DICTIONARY 715 (8th ed. 2004). This definition recognizes that goodwill does not have any value in itself but derives its value from other assets. Similarly, accounting goodwill has no value in itself but derives its value from other assets. As per the FASB, accounting goodwill reflects a business's customer base, customer service capabilities, and other intangible assets that are included in the purchase price of a company; it also reflects the synergies created by the net assets working together. Because the definition of accounting goodwill and the general definition of goodwill are similar, we refer to these terms interchangeably throughout this opinion.

35. See Brasher v. Broadwing Energy, Inc., 2012 WL 1357699 (N.D. Ill., 2012) (plaintiffs stated a claim, not subject to early dismissal, that company failed to timely disclose issues regarding valuation of goodwill). See also Fox v. CDX Holdings Inc., 2015 WL 4571398 (Del. Ch. Ct. 2015) (the court notes that a valuation for ASC 350 impairment purposes varied significantly from a separate valuation for purposes of a transaction, and showed an intent to deceive with respect to the latter), aff'd, 141 A.3d 2016 (Del. 2016).

36. ASC topic 350, formerly referred to as Statement of Financial Standards No. 142, is also issued by the Financial Accounting Standard Board. It was amended in 2012 to ease the requirements for annual "testing" of goodwill valuations, but continues to require evaluation by company management of whether certain events may trigger the need for testing and re-valuation of the goodwill.

37. See Brealey Myers & Allen, *Principles of Corporate Finance*, at 98-108 (9th ed. 2008).

38. Union Pacific Railroad Company v. State Board of Equalization, 49 Cal.3d 138, 776 P.2d 267 (1989).

39. Arguably, PVGO is part of goodwill, because by definition it represents returns greater than the cost of capital on those future investments—that is, excess earnings over a normal return on the future assets.

Richard G. Smith is a partner in the Boise office of Hawley Troxell Ennis & Hawley LLP, where he is chairman of the firm's tax group. His practice emphasizes the representation of taxpayers in tax disputes in state and federal courts, before the Internal Revenue Service, and before tax commissions and boards of tax appeals throughout the United States. Mr. Smith has participated in many litigated tax disputes in various states in cases involving every major type of tax, and before the federal courts on IRS matters and in cases involving the "4-R Act" affecting railroads. He graduated from the University of Idaho in 1975, summa cum laude, and received his law degree, cum laude, from Georgetown University in 1979, where he was managing editor of the Georgetown Law Review. *Mr. Smith is member of the Idaho, Washington, and Montana State Bars, and also is a certified public accountant. He can be reached at (208) 388-4932 or rsmith@hawleytroxell.com.*

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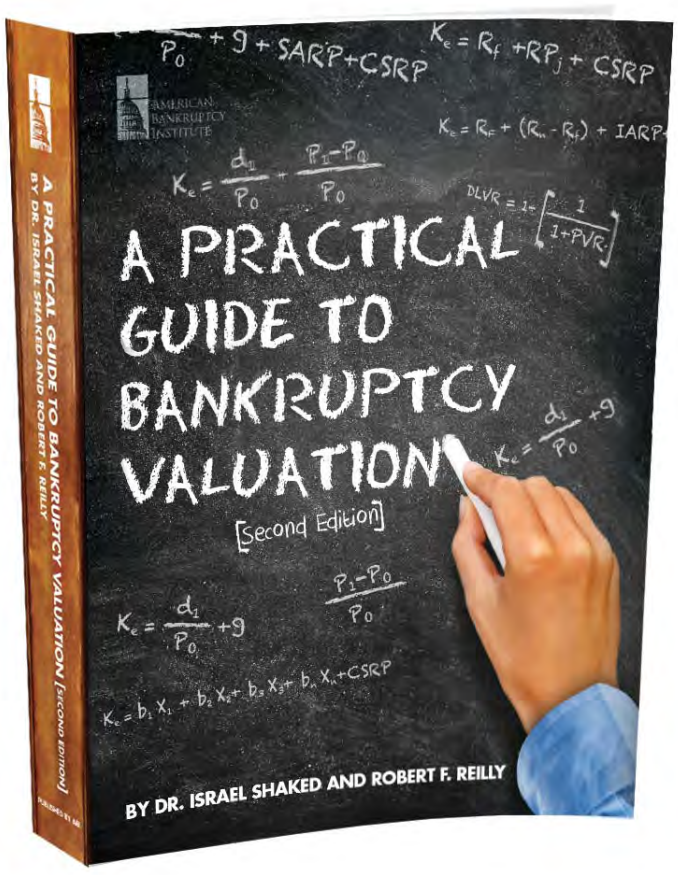

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A PRACTICAL GUIDE TO BANKRUPTCY VALUATION

Dr. Israel Shaked and Robert F. Reilly

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Implications of Wind Energy Decommissioning and Repowering on Ad Valorem Taxation

Thomas Russell

Many wind energy projects in the United States are reaching an age where the property owner must decide whether (1) the project will be extended through a repowering investment or (2) the project will be decommissioned and removed at the end of the project's useful life. These wind project investment decisions are affected by tax incentives, rapidly changing technology, and an evolving marketplace. However, the assumed investment decision at the end of the project's initial useful life affects the value of the wind project at any age. This discussion analyzes the current context of repowering versus decommissioning wind farms in the three generally accepted property valuation approaches. And, this discussion explains why the standard valuation assumption should be to decommission the wind project at the end of that project's useful life.

Introduction

Utility-scale wind power projects in the United States began in California in the 1980s, and some of the first projects have already been repowered or decommissioned. To date though, this repowering versus decommissioning decision has affected a relatively small proportion of the total installed capacity of wind farms. However, this investment discussion will be an increasing consideration—as a greater number of projects continue to age.

As of the end of 2016, there was over 80,000 megawatts ("MW") of installed wind capacity in the United States. Of this amount, over 70,000 MW of capacity was installed within the last 10 years.[1]

Despite the relatively young age of U.S. wind farms, the implications of repowering affect all wind farms, as it is critical to the valuation of any aged wind farm to consistently apply a scenario for the wind turbines at the end of their 20- to 25-year design life.

Near-term repowering and retrofitting investment decisions are currently made based on tax incentives that are set to expire in a few years. Because of this, it may seem appropriate to extend the remaining life estimate used in the wind farm valuation analysis beyond the initial 20- to 25-year investment period.

However, this may be a problematic valuation assumption. This is because the assumption of repowering or retrofitting investments as a probable outcome for property taxation purposes is speculative. Such an assumption risks the inclusion of property into the valuation that does not yet exist as of the valuation date.

This discussion will:

1. identify the features of decommissioning, retrofitting, and repowering;
2. provide an overview of the three generally accepted property valuation approaches as applied to the analysis of wind farm projects; and
3. explore how the three generally accepted property valuation approaches are affected by the investment decision of decommissioning, retrofitting, or repowering.

Overview of the Investment Decisions at the End of Design Life

There are three main end-of-design-life investment decisions for aging wind farm projects: decommissioning, retrofitting, or repowering.

Decommissioning is the full removal of the project with restoration of the land included in the retirement costs.

Retrofitting a wind farm requires the reuse of portions of the project, such as the foundations, towers, and electrical infrastructure, and the installation of new components for the nacelle and often the rotor. Retrofitting sometimes, but certainly not always, improves the nameplate capacity or efficiency of the project.

Repowering is the removal of older wind turbines and replacement with current technology.

Which investment decision is best for a wind project can be highly site dependent and, for newer wind farms, it is impossible to know which choice will make the most economic sense 10 to 15 years into the future.

Other factors complicating the end-of-design-life investment decision include the following:

1. The fact that certain tax incentives are set to expire in the next few years
2. Uncertainty as to what the competitive landscape will look like for existing wind farms going forward

Before discussing the impact of these end-of-design-life scenarios specifically, it may be useful to start with a high level overview of each property valuation approach as commonly applied to wind farm projects.

As with any other valuation topic, the laws in a particular state may lead to different treatment than is outlined below. The concepts discussed are intended to be generally applicable to valuing wind farm projects, but of course, exceptions exist.

Sales Comparison Approach

The sales comparison approach is seldom relied on for valuing a wind farm project. This is because sales of wind farms are scarce, and those sales that occur generally do not have adequate details available to ensure comparability.

Investments in wind farm projects often rely on front-loaded state and federal tax incentives that have different value depending on the tax appetite of participants or whether tax equity arrangements are established.

Given the lack of quantity and quality of sales in the market, analysts typically look to the cost approach and the income approach to appropriately value wind energy projects. In the event there is an increase in the number of sales, it is important to evaluate the context of each sale to identify where the buyer is placing value in order to determine if the sale is applicable to the general market.

Cost Approach

The main issues with applying the cost approach to valuing wind projects are as follows:

1. Developing an appropriate starting point for replacement cost new ("RCN")
2. Calculating any external obsolescence that may exist

In the past decade, there have been important improvements in technology, while costs of the turbines have decreased significantly since 2009. Thus, historical cost may be a difficult place to start. This is because it can be challenging to verifiably address all aspects of the changes in the cost trend factor.

Reproduction cost new ("RPCN") is also problematic. This is because of significant changes in the size of equipment. Also, in many cases, the original type of technology is no longer being produced. Coupled with the cost trends in the industry, this means that RCN is generally the appropriate starting point in the cost approach analysis.

To obtain a relevant RCN, the following question needs to be considered: Is the replacement in the megawatt-hours ("MWhs") that the project currently generates or is the replacement in the nameplate capacity with the latest technology?

For instance, if the subject property is a 150 MW nameplate capacity project built in 2009 with 100 turbines at 1.5 MW each with an average net capacity factor ("NCF") of 30 percent, this means the wind project generally produces 394,200 MWhs annually.

To replace the installed capacity of 150 MW in 2017, one could install 50 turbines rated 3.0 MW each. This could yield significant savings in terms of plant infrastructure, such as the electric lines of the collection system and access roads to each turbine.

However, these replacement turbines are likely to be more efficient as well, and perhaps capable of achieving a higher NCF, of say 35 percent. On the other hand, to replace 394,200 MWhs in 2017, the equivalency would be 129 MW of installed capacity, or 43 turbines rated at 3.0 MW each.

If the objective is to replace the 150 MW of installed capacity, a functional (or technological) obsolescence adjustment needs to be made to account for the increased efficiency of the new turbines. This obsolescence adjustment can be developed, for example, as a present value adjustment for the increase in MWhs the new technology is expected to produce.

In either case though, a further adjustment may be needed to account for the excess operating costs of having to service 100 turbines in the subject wind plant versus only 43 or 50 turbines in the theoretical replacement wind plant.

With an appropriate starting point for RCN established, and after calculating physical deterioration and other forms of functional obsolescence, the final measurement needed in the cost approach is to check for economic obsolescence. Here, it is important to understand the context of the subject wind farm and the various tax incentives it has utilized.

State and federal tax incentives are often front-loaded in the life of a wind project and are not all available to a market buyer. It is also important to recognize the significant declines in the prices of wholesale electricity and power purchase agreements ("PPAs") in the last few years.

These factors mean that getting the economic obsolescence calculation correct is important to the valuation of the wind farm project and, although a wind farm project may be relatively new, the market value could be significantly lower than its historical cost and the RCN starting point.

Difficulties in calculating economic obsolescence for a cost approach valuation analysis means there may be an increased reliance on the income approach.

Income Approach

With a paucity of comparable sales and the number and complexity of adjustments in the cost approach, the income approach is likely to be the approach used for valuing wind projects. The income approach essentially values the future economic benefits that a hypothetical market buyer will receive.

In order to provide a credible value indication using the income approach, an analyst should have a clear understanding of electricity markets, renewable energy certificate pricing (if taxable), and operation and maintenance expenses, including major maintenance items.

The challenges in using the income approach include decisions of how long cash flow should be

projected, the appropriate discount rates to apply, the scope and timing of retirement expenses, and as examined further below, how prospective repowering should be handled.

Because of the variable nature of cash flow for wind energy projects, and the fact that equipment is predicted to have a finite life, using the income approach discounted cash flow method is typically preferred to the income approach direct capitalization method.

End-of-Design-Life Investment Decisions and Their Impact on Valuation Approaches

Decommissioning

Decommissioning is oftentimes the least risky outcome to expect for a wind farm at the end of design life. This is because the assumption underlying this investment decision is that the future economic benefits of the wind farm will stop in a relatively predictable time frame.

In some cases, decommissioning will occur prior to the typical 20-year project design life, and in others cases, decommissioning will occur long after the project design life. The Ponnequin facility in Colorado is an example of a project that was recently decommissioned; the turbines had an average service life of 18 years.[2]

Decommissioning is an economic decision as much as an engineering decision. With low power prices and many states already meeting current mandates for renewable portfolio standards, the returns from continuing to operate a wind farm may not justify its continued operation. This is true even if the wind farm is physically able to operate.

Wind projects may be covered by PPAs which currently insulate the project from prevailing low power prices, but as these contracts expire, wind farms continue to age, and if prices remain low, there could be an increase in the number of decommissioned wind projects in the near future. As aging equipment fails, the decision will need to be made whether the cost of replacing the failed component is supported by estimated future returns.

Another factor affecting the investment decision is technological change in the industry. Changes in technology mean that replacement parts may not be readily available for older technology, and a tiered approach to decommissioning may occur, where some turbines are taken out of service to serve as a source of parts for the portion of the wind farm that continues to operate.

To decommission a wind farm, significant costs are incurred for disassembly of the rotor, nacelle, and tower. The blades are not easily recycled, so that the experience in Europe thus far has largely been to shred the blades and send the material to a landfill.[3]

The tower and nacelle components likely have some scrap value which can help offset some of the other costs of decommissioning. Beyond this, the land usually needs to be reclaimed to at least 18 inches below the ground surface, meaning portions of the foundation and underground collection system will need to be removed, adding to the total decommissioning costs. Even offset by some salvage value, these costs should be factored into the decommissioning decision.

Decommissioning costs can be easily addressed in the income approach. Using an estimate for how long the wind farm will continue to operate, the costs of decommissioning can be added into the final year of operations.

It typically makes sense to ramp down production in the years preceding the final operating year to match the expectation that a wind farm will not suddenly cease operations, but instead will see increased downtime and perhaps a reduction in total nameplate capacity as individual units are retired.

Decommissioning assumptions also need to be included in the sales comparison and cost approaches, but these can be more difficult to specifically identify. In the sales comparison approach, assuming there are comparable sales, the costs and timing of decommissioning will be factored into the sale price.

In the cost approach, the costs of decommissioning can be incorporated into the economic obsolescence calculation. In performing this calculation, the analysis centers on whether the property will be able to provide sufficient return on replacement cost new less other forms of depreciation, and this return should include the costs of decommissioning.

Retrofitting

Retrofitting a wind farm has an advantage over the full repowering scenario in that some of the existing equipment and infrastructure can be reused. This advantage generally makes the investment required for retrofitting less than for repowering.

However, a retrofitted plant is probably not going to last as long as a repowered plant and a retrofitted plant also has limitations on how much of its technology can be upgraded.

An additional facet of the retrofitting decision analysis is the federal renewable energy production tax credit ("PTC").

Under Revenue Ruling 94-31, the Internal Revenue Service (the "Service") explains that each facility eligible for the PTC is defined as the "wind turbine, together with its tower and supporting pad."

This definition means that a 50-turbine wind farm has 50 separate facilities. Each of these separate facilities can qualify for the PTC "provided fair market value of the used property is not more than 20 percent of the facility's total value (the cost of the new property plus the value of the reused property)."

This requirement is known as the "80/20 test." The 80/20 test requires that the retrofitting investment in new property, measured in actual cost, be four times greater than the fair market value of the facility's reused property in order to qualify for the PTC.

The Service definition of "facility" is important here, since it includes only the pad, tower, nacelle, and rotor. Because of this definition of facility, the value of any nonfacility plant assets and any intangible assets are excluded from the 80/20 test.

The effect of this definition on determining the fair market value of a facility's reused property is outside the scope of this discussion and is something that companies will be working through ahead of the PTC expiration date on January 1, 2020.

In order to qualify for the PTC, retrofitting construction needs to commence by December 31, 2019. Construction commencement can be met with a 5 percent investment safe harbor. This investment safe harbor will allow companies to achieve 100 percent of the PTC value, even though the PTC value is set to phase out, beginning in 2017.

The time frame to apply for the PTC is short, and the value of these tax credits can be a big driver of a company's decision to retrofit. In some markets, the PTC is worth more than wholesale energy prices.

The PTC value is such that a company may choose to make a retrofitting investment before the end of a project's initial design life, the retrofit being pushed ahead of mechanical necessity in order to secure the PTC incentives.

With the PTC deadline in mind, it is probable that the wind industry will see a lot of retrofitting activity in the next few years. This is because companies have invested in retrofit equipment under the 5 percent safe harbor that will enable projects to qualify for the PTC at the full rate.

And, in some cases, companies may purchase wind farms with the specific intent of completing a retrofit. Accordingly, the number of wind farm sales may increase in the near term.

However, caution should be used before relying on these transactions as comparable sales data. This is because, from a property valuation perspective, the PTC is not always allowed to be assessed by state law. In those states, any comparable sales data would need to be adjusted to remove the value of any PTC, which will vary for each taxpayer depending on its tax appetite.

In other words, a buyer may pay higher than market value, as defined for property taxation, for a wind farm it can retrofit because of the ability to qualify and utilize tax incentives, such as the PTC.

Additionally, many wind farms currently are not, or will not be, able to qualify for the PTC under a retrofit. It may not be feasible to complete a retrofit within the PTC expiration time frame, or the condition of the wind farm may be such that a retrofit is not physically possible.

Given this variety across the market, any sale made with the buyer planning a PTC qualifying retrofit should not be used as a comparable sale for the industry.

Despite the expected increase in retrofits for the next few years, this should not be viewed as the probable outcome for wind farms at the end of the initial design life. This increase in activity is driven by an incentive that has an established sunset date.

Without knowing what future tax incentives will look like (if any) and given the lack of support for renewables by the current U.S. president's administration, it is unknown what the demand will be for retrofit investment beyond the near term.

From the market buyer's perspective, it is difficult to imagine investing under a retrofit assumption outside of the next few years. Otherwise, there is too much speculation regarding future energy prices, hypothetical tax incentives, and capital cost of retrofits to place much weight on this scenario.

Repowering

Repowering a wind farm may be an attractive option for wind farm operators, especially in the current industry environment where tax credits such as the PTC and the Investment Tax Credit ("ITC") still exist.

Under a repowering scenario, as opposed to a retrofitting scenario, the entire wind farm is upgraded. The advantage of repowering is that it allows for the installation of the latest technology without any question of whether the upgrade qualifies for federal tax credit incentives.

Certain wind plant assets such as the meteorological tower, operating and maintenance ("O&M") building, and electrical infrastructure may potentially be reused, but in most cases the repowering will include the installation of new foundations, a new energy collection system, and probably new access roads to new turbine sites.

Additional advantages of repowering an existing wind farm site include having practical knowledge of environmental impacts, wind speed, and relationships with local permitting agencies.

There have been several wind project repowers to date, involving the removal of hundreds of turbines at a lower nameplate capacity, often below 1 MW, and the installation of the latest technology turbines that may have nameplate capacities above 3 MW per turbine.

A repowered wind farm project can provide a variety of benefits. These benefits include the following:

1. A smaller number of turbines for the same overall energy capacity
2. Decreased O&M costs
3. Environmental benefits from having a smaller footprint

Many of the first wind farms in the United States were built on some of the best wind sites. The repowering of these wind farms means that they will benefit from positive locational attributes, perhaps leading to greater returns than the development of new sites.

From a valuation perspective, a repowering project could be considered an independent investment decision. An investor will analyze the cost of the repowering project compared to its expected future benefits. This analysis is nearly identical to an analysis of developing a new wind farm on a new site. In general, the level of due diligence required for both of these analyses would typically be the same.

In the near term, the expected future benefits of repowering will include qualification for either the PTC or the ITC which, as with retrofitting, will be a significant factor in the amount of repowering activity that occurs during the phase-out of these important tax incentives.

Potential sales of wind farms may occur with the buyer expecting to repower, especially in the next few years in order to utilize tax incentives. If this is the case, the buyer paid for the expected cash flow of the old equipment prior to repowering, as well as the intangible assets that make repowering feasible.

These intangible assets could include wind data, lease rights, permits, the present value of growth opportunities, and other intangible assets.

The repowering investment itself will primarily include all new tangible assets that don't yet exist. And, the repowering investment will need to meet the investor's required rate of return before the additional investment is made. A sales price can be divided into an estimated cash flow for both the current project, plus the option to repower the project.

But the repower option most often will not have any value for property tax assessment purposes, with few exceptions, and it will require an allocation of the purchase price to the respective assets, tangible and intangible, in order to properly utilize a sale for this purpose.

Once properly allocated, the use of the sales comparison approach should produce values close to the income approach, where the future benefits of the existing property drive the taxable value.

Valuing Old Equipment Assuming New Investment in the Income Approach

To incorporate a retrofitting or repowering option in the income approach, one would show a large capital expenditure at the end of the initial project's design life, followed by cash flow from the new property going forward. This is problematic for two reasons.

The first reason is that a repower/retrofit option is not assured, so the same discount rate used for the initial project investment may not be appropriate for the repower/retrofit investment project. Typically, a higher discount rate would be applied to the repower/retrofit project cash flow to represent the greater risk of more uncertain returns.

In addition, the expected return on the repower/retrofit investment is from future tangible property. Assigning this expected return on "potential" investments, possibly made 15 to 20 years into the future, inflates the present value of the wind farm project.

For example, the cash flow expected on 3 MW machines should not be used to estimate the fair market value of a 750 kilowatt machine. To be clear, though, certain capital investments need to be included in the income approach analysis in order to reflect the project design life of 20 to 25 years. These capital investments include major maintenance items, such as replacing gearboxes, generators, and blades. They are expensed for income tax purposes.

Although these capital expenditures are for replacement property, they are distinct from the major overhaul of a retrofit or the full property replacement through repowering.

To the extent that a retrofitting or repowering investment is assured, there may be value assigned to the specific property that will be reused.

However, in order to develop credible appraisal results, the repowering or retrofitting project should have a high degree of certainty, the value should be limited to those components that will contribute to the project cash flow, and the discount rate should accurately reflect the additional risk of the retrofitting or repowering project.

Predicting the Future

Beyond the short-term outlook, where a substantial number of wind farm builds will occur before the federal tax incentives roll-off, there is uncertainty for the U.S. wind industry.

Wind energy is cost competitive now with other forms of energy generation. However, without the implementation of a carbon tax or an energy plan that recognizes the importance of addressing climate change, the scope and rate of advancement of this industry is unclear.

Increases to state renewable energy portfolio standards will also be an important driver of industry growth. New forms of energy generation are

being explored, and in the long-term may prove to be commercially viable.

In 2016, the first U.S. offshore wind farm began operating off Rhode Island. These wind energy machines are much larger and more efficient than their onshore counterparts. If the cost curves for offshore wind farms come down as expected, these projects may become a substantial part of the U.S. energy mix.

As with onshore wind farms, Europe is much farther ahead in offshore wind energy development, and is proving the viability of this renewable energy source.

Further sources of renewable energy will include increased utility and residential solar development, exploration of wave energy, and a whole range of earlier stage technology that may become competitive on longer time scales. Onshore wind energy will have an important place in the U.S. energy industry, but the disposition of existing equipment at the end of its useful life is very much in question.

Given the age of the U.S. wind farm fleet, in the near term, there should be a significant number of wind farms that initiate at least one of the three end-of-design-life scenarios summarized in this discussion.

Several of these wind projects could be a retrofit or repowering. Both of these scenarios are largely dependent on the characteristics of the wind farm site, specific to wind speeds, physical viability of reusing the existing equipment, and changes to capital costs and technology.

Another consideration to keep in mind is that a valuation should be based on reasonable and supportable assumptions. For example, if the lease rights or local permits to a specific site are only for 25 or 30 years, one cannot reasonably assume a retrofitting or repowering scenario that depends on a longer time scale.

Most valuation assignments deal with uncertainty. And, handling this uncertainty is where the art of valuation meets the science of valuation. In dealing with the uncertainty of what happens to property at the end of the initial investment period, there is a tremendous amount of due diligence required to pursue a repowering or retrofitting scenario.

For a retrofitting scenario, that due diligence may include an inspection of the foundations and towers to be reused, and engineering studies to confirm the viability of this scenario.

For both the repowering and retrofitting scenarios, analysts should consider if the economics of the market make further investment feasible by incorporating available incentives, the prevailing electricity prices, capital expenditures, and required returns.

Importantly, not all property of a wind farm is assessable for property tax purposes, so care should be taken to allocate value appropriately.

Telling the Story

Similar to other valuation assignments, the assumptions employed in the wind farm valuation tell a story. Do the physical, economic, and legal conditions exist to permit future investment at the site that will extend the life of some of the existing property? Are there tax incentives that drive the investment decision? How do estimates of wholesale electricity prices support the story?

Looking at the history of the periodic lapses of the PTC and the effect of the PTC on wind power installations shows how these tax incentives have shaped investment in the industry. However, beyond the expiration date of the current tax incentives, the story becomes less clear and needs to be treated as uncertain within each valuation approach.

The eventual decommissioning of a wind project needs to be incorporated in the determination of the fair market value of a wind project. If the conditions for a particular project, and the investment environment are such that a retrofit or repower is highly probable, then the story will be about which components will be reused in the next investment cycle and the value of those components.

However, barring a compelling reason to assume otherwise, a wind farm valuation should assume market participants buying and selling on the presumption that the wind farm will not last beyond its initial 20- to 25-year project design life.

Given this assumption, and the suitability of the income approach in valuing wind farms, using a discounted cash flow analysis that incorporates decommissioning costs in the final year will likely provide the most reliable indication of the fair market value for a subject wind property.

Notes:

1. AWEA 4Q 2016 report.
2. http://www.opb.org/news/article/where-do-wind-turbines-go-to-die/
3. http://www.windpowerengineering.com/design/mechanical/blades/recycling-wind-turbine-blades/

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Undeveloped Mineral Interests and the Assessment Conundrum—*Jordan v. Jensen*

Steven P. Young, Esq., and Pamela B. Hunsaker, Esq.

A recent appeal to the Utah Supreme Court involved the issue of whether a local property tax assessment included the severed, undeveloped mineral reserves. Several amicus briefs were filed addressing that issue. This discussion addresses (1) the constitutional and practical hurdles to assessing undeveloped mineral reserves and (2) the reasons why local assessments of surface interests cannot be deemed to include an assessment or valuation of severed, undeveloped mineral reserves.

Introduction

The Utah Supreme Court recently affirmed the right of property owners to challenge tax sales that are conducted without constitutionally adequate notice to the property owner, even when the challenge takes place after the prescribed statutory limitations period has expired.

Although the case was decided on the narrower due process grounds, there was another issue before the district court with far reaching implications. That issue caught the attention of numerous Utah groups. That other issue resulted in the filing of several amicus briefs with the Utah Supreme Court.

This issue concerned whether a severed, undeveloped mineral estate is automatically included in a county assessment of the surface interest such that a tax sale of the surface interest also conveys the severed, undeveloped mineral estate.

In *Jordan v. Jensen*, the property at issue was subsurface mineral rights that had been severed from the surface interests in 1995. The owner of the surface interest estate failed to pay property taxes between 1995 and 1999, and Unitah County (the "County") seized the property and sold it in a tax sale in 2000. The purchaser of the tax deed then sold the property to the Jensens.

The Jordans were the owners of the severed mineral interest. Neither they nor their predecessors had ever received notice of tax assessments for the mineral estate, nor did they receive notice of the surface interest owners' failure to pay taxes or of the tax sale. Although the mineral interest was severed from the surface interest in 1995, the 2000 tax deed purported to convey the land without reservation or exceptions.

Neither party disputed that the County failed to provide constitutionally adequate notice of the sale to the owners of the severed mineral interest.

A lessee of the Jordans' mineral rights secured two title opinions in an effort to ensure that the Jordans actually owned the leased mineral interests. Both opinions expressed concern that the mineral estate may have passed to the Jensens under the tax deed.

When the Jordans became aware of the title concerns in 2013, they asked the Jensens to sign a mineral rights quitclaim deed to settle the issue. The Jensens responded by claiming ownership of the mineral estate for the first time.

The Jordans then filed a complaint to quiet title,[1] alleging that the mineral interest could not have passed as a result of the tax sale because the Jordans never received notice of the sale.

The Jensens counterclaimed, seeking title to the mineral interest and alleging that the Jordans' action was barred under the Utah judicial code. This was because more than four years had passed since the tax sale.

In the code's chapter on statutes of limitations, Section 206 prohibits a party from challenging conveyance in a tax sale after the passage of four years, as follows: "An action or defense to recover, take possession of, quiet title to, or determine the ownership of real property may not be commenced against the holder of a tax title after the expiration of four years from the date of the sale, conveyance, or transfer of the tax title to any county, or directly to any other purchaser at any public or private tax sale."

The Jensens invoked this provision in defense against the Jordans' action to quiet title, claiming that inasmuch as the tax sale had occurred more than four years prior to the lawsuit, the Jordans could not challenge the validity of the tax sale.

The Jensens argued that the tax sale *would have been voidable* for failure to provide notice within the four-year period, but that the limitations period protected the tax title from legal challenges after that time.

Both parties filed motions for summary judgment.

The district court's decision addressed and resolved three issues. The first issue was whether the date of assessment or the statutory lien date was relevant for determining whether the severed mineral estate had been assessed. This was important because, in Utah, the lien date is January 1 of the relevant tax year, several months before the property is actually assessed.

In this case, the mineral estate was severed from the surface estate on February 3, 1995, one month after the lien date, but several months before the date of assessment.

The district court ruled in favor of the Jordans on this issue, in part because the mineral interest was severed before the assessment took place.

The second issue addressed by the district court was whether the County had the authority to assess severed, undeveloped mineral interests. This issue has two subissues, namely: (1) whether an undeveloped mineral interest is subject to assessment and (2) if so, should it be centrally assessed (by the Utah State Tax Commission) or is it included in the local assessment of the surface estate (by the County).

The district court recognized that, under Utah law, the Commission had the express authority to tax all "valuable" mineral interests. It opined that undeveloped mineral interests have no value (or a value that is extremely difficult to ascertain) and that the Utah counties (the "counties") had no history of assessing severed mineral interests.

The district court concluded that undeveloped or undiscovered minerals are akin to an intangible asset and, as such, are outside the scope of the Utah law and are not subject to taxation.

The third issue addressed by the district court was whether the lack of notice to the Jordans prevented the triggering of the four-year limitations period within which the Jordans would have been required to challenge the tax sale.

The district court held that the lack of constitutionally required notice deprived the County of the right to sell the severed mineral interest. As it turned out, this was the only issue addressed by the Utah Supreme Court in its decision.[2]

The Utah Supreme Court held that "the due process issue decisively settles the dispute"[3] and left the remaining issues unaddressed.

Although the Utah Supreme Court did not address whether undeveloped mineral estates are subject to assessment, this issue has significant implications for property owners, including the owners of severed mineral estates. The significance of the issue is demonstrated by the filing of several amicus briefs in connection with the Jensens' appeal.

The Commission filed an amicus brief in support of the Jordans asking the Utah Supreme Court to recognize (1) that its assessment authority for minerals does not include undeveloped reserves and (2) that a decision imposing such a requirement would place a significant burden on the Commission to tax undeveloped reserves of indeterminate value.

The Utah Farm Bureau, Utah Petroleum Association, Utah Mining Association, and Utah Taxpayers Association (collectively "Farm Bureau Amici") also filed an amicus brief in support of the Jordans asking the Utah Supreme Court to avoid putting any language into its decision that would require either the Commission or the counties to find and uniformly value undeveloped mineral reserves.

The Utah Association of Counties ("UAC") filed a brief in support of the Jensens, asking the Utah Supreme Court to find that all county assessments implicitly included assessments of undeveloped mineral estates, even when the mineral estate has been severed from the surface estate.

This discussion summarizes the arguments raised by the parties and the amici regarding:

1. whether undeveloped mineral reserves are subject to assessment and
2. if so, whether the Commission or the County has the authority to assess undeveloped reserves.

The Jensens and UAC took the position that the "general" assessment of the surface estate included

an assessment of the mineral estate even when the mineral estate was severed from the surface estate and was owned by a different party.[4]

The Jordans and supporting amici (the Commission and the Farm Bureau Amici) focused on whether a county assessment of a surface estate is also an assessment of the severed, undeveloped mineral interest.

Next, this discussion addresses the challenges of requiring central or local assessment of a severed mineral interest, as well as the problems inherent in taking the position that local assessments already include an assessment of severed mineral rights.

Requiring Central Assessment of Undeveloped Mineral Reserves Creates Constitutional Concerns and Practical Difficulties for Assessing Authorities

The Commission filed an amicus brief on this issue to explain when and how the Commission exercises its jurisdiction to value mineral reserves. The Commission was concerned that the Utah Supreme Court may decide this issue in a way that would impact the Commission's assessment and valuation practice.

At that time, undeveloped mineral reserves in Utah were not centrally assessed by the Commission or locally assessed by the counties.

The Commission was concerned that the decision issued by the Utah Supreme Court would impose a duty on the Commission to value and assess undeveloped reserves. The Commission expressed its concern that it did not have the ability or the budget to carry out such an obligation.

Although these concerns were expressed by the Commission in its amicus brief, the counties would face the same obstacles if they were required to assess undeveloped mineral reserves.

The Commission explained that the assessment of undeveloped reserves would be a significant departure from long-standing historical practice of not imposing property taxes on such reserves. The Commission's fundamental concern regarding the potential finding by the Utah Supreme Court of a duty to value undeveloped reserves was that the Utah Constitution requires uniformity of assessments.[5]

Not only is it impossible to ascertain the value of hidden reserves, but a constitutional responsibility to do so places an insurmountable burden on

any assessing authority. Valuation of undeveloped reserves presents complex factual issues including determining the value of the hidden reserves and whether they can be extracted economically.

The Commission was concerned that neither the Commission nor the counties had the manpower or technology to determine the value of hidden reserves.

Under Utah law, only the Commission is charged with the power to assess mines. The Commission has had the constitutional authority to assess all mines and mining claims under Utah Const. Art. XIII § 6 ("The State Tax Commission shall: . . . (b) assess mines") and Utah Code Ann. § 59-2-201(1)(a)(v)("all mines and mining claims" are to be centrally assessed by the Commission). Furthermore, under Utah law, the Commission is only directed to assess "valuable" mines or minerals.[6]

A "mine" is defined as "a natural deposit of either metalliferous or non-metalliferous valuable mineral," and "'non-metalliferous minerals' includes . . . oil [and] gas."[7]

The Commission has interpreted this directive to require it to assess oil and gas after a well is drilled and the minerals become developed reserves and other minerals when they become "proven" or "probable" reserves.

In order to understand the current scope of that task, the Commission explained the meaning of "undeveloped reserves" in the oil and gas and mineral context. For oil and gas, "developed reserves" are the reserves "that can be expected to be recovered . . . [t]hrough existing wells."[8] "Undeveloped reserves" are those "that are expected to be recovered from new wells on undrilled acreage."[9]

The Commission's administrative rules only requires the Commission to value "productive underground oil and gas rights" rather than those that are not drilled.[10]

In the mineral (non–oil and gas) context, only those reserved that are "proven" or "probable" are subject to property taxation. Proven reserves and "reserves for which (a) quality is computed from dimensions revealed in outcrops, trenches, workings or drill holes; grade and/or quality are computed from the results of detailed sampling and (b) the sites for inspection, sampling and measurement are spaced so closely and the geologic character is so well defined that size, shape, depth and mineral content of reserves are well established."[11]

Probable reserves are "reserves for which quantity and grade and/or quality are computed from information similar to that used for proven (measured) reserves, but the sites for inspection, sampling, and measurement are farther apart or are otherwise less adequately spaced. The degree of assurance, although lower than that for proven (measured) reserves, is high enough to assume continuity between points of observation."[12]

The Commission's administrative rule only requires valuation for proven and probable reserves.[13]

In 2003, one Utah county appealed the central assessment of oil and gas property because the assessment did not include a value for undeveloped reserves. The Property Tax Division of the Commission explained that it had not historically separately valued undeveloped reserves and did not have a methodology or techniques that would allow it to determine the fair market value of hidden reserves.

The Commission acknowledged the impossibility of this task and took "official notice of the fact that value that might be attributable to undeveloped reserves has not been specifically accounted for in the appraisal methods used in Utah under Rule 10."[14]

While recognizing that sometimes undeveloped reserves have value, such as when they are directly purchased, the attempt to value and tax such reserves in any given case would result in challenges under the uniformity clause of the Utah Constitution if the Commission (through its Property Tax Division) were not to value and assess all undeveloped reserves.

A conclusion that undeveloped reserves are "valuable" would impose on the taxing authorities the requirement to assess and tax undeveloped reserves despite the many problems inherent in valuing the vast, undeveloped reserves throughout the state of Utah.

The Utah constitution requires that property be taxed "at a uniform and equal rate in proportion to its fair market value."[15]

Satisfying the constitutional requirement of uniformity is impractical when dealing with hidden reserves of indeterminate value. Neither the Commission nor the counties have the resources or the expertise to identify all possible reserves below the surface of the earth, including the quality, quantity, and the costs of retrieving such reserves. The requirement that the calculations result in uniform taxation is an impossible task.

For example, two properties may appear to have similar mineral reserves, but one may be more expensive to extract or the reserves may differ significantly in quality or quantity. Yet, if there is a duty to tax hidden reserves, assessment authorities would be required to account for such differences in their assessments of the undeveloped reserves.

Not all difficulties in extraction or differences in quantify or quality are apparent from looking at the surface estate. In addition, some minerals, such as oil and gas are "fugitive resources" which do not have a "fixed situs under a particular portion of the earth's surface within the area where they obtain."[16]

Value is also determined by environmental concerns, regulations, and constant fluctuations in prices. These variables do not have a direct impact on undeveloped reserves. However, if assessment of undeveloped reserves is required, then they will be assessed on the basis of current market conditions, when, in fact, the minerals may not be extracted and marketed for years or even decades.

If it were practical or possible to uniformly value such reserves, the market for severed mineral rights would be much more robust. However, property owners and potential purchasers do not have the means or the ability to look below the surface of the real property and accurately determine the value of the mineral content within the earth or the costs of extracting such minerals.

The practice of valuing and assessing undeveloped reserves raises additional public policy concerns. Much of the undeveloped land in Utah is owned by farmers and ranchers.

A decision requiring valuation and assessment of undeveloped reserves could force farmers and ranchers to sever their estates, enter into possibly unfavorable leases, or potentially lose their property as a result of the inability to pay taxes on the value assessed for undeveloped mineral reserves.

Requiring mineral interest holders to pay taxes on reserves of unknown value before those mineral interests are generating any income could force owners to sell mineral interests or to accelerate production in an attempt to generate revenue. Such an acceleration of production could have adverse consequences on the environment, agriculture, and other community interests.

Based on all of these considerations, the Jordans and supporting amici asked the Utah Supreme Court to refrain from imposing a duty to assess undeveloped mineral reserves on any assessing authority.

Notwithstanding the insurmountable challenges in valuing and assessing undeveloped mineral estates, the Jensens and UAC claimed that all undeveloped mineral estates are currently assessed through the local assessment process and, as a result, even the severed mineral interests are conveyed in tax sales when the surface interest is seized and sold for delinquent taxes.

This interpretation of law presents serious constitutional issues.

If a County's General Assessment of a Surface Estate Is Deemed to Include the Assessment of Undeveloped, Severed Mineral Estates, Constitutional Issues Will Cloud the Title

In the *Jordan v. Jensen* case, the Jensens and UAC took the position that severed, undeveloped mineral estates are not required to be separately assessed, but are implicitly included in the local assessment of surface estates. Under Utah law, the counties are required to "assess all property located within the county which is not required by law to be assessed by the [C]ommission."[17]

The Jensens argued that if the Commission is only required to assess "valuable" mines under Utah Code Ann. § 59-2-102(24), then the Commission's authority to assess does not arise until production begins on the severed mineral estate and production of minerals is reported to the Commission.

Therefore, because undeveloped mineral interests are "not required by law to be assessed by the [C]ommission," the Jensens claimed that Utah law requires the counties to assess undeveloped mineral interests.

The Jensens and UAC acknowledged that the counties in Utah have never tried to value severed, undeveloped mineral estates. Nevertheless the Jensens and UAC took the position that the general assessments of surface estates should be presumed to include the value of the undeveloped mineral estate—whether severed or not and regardless of whether the mineral estate is given any value by the assessing county.

The argument that a general assessment includes both the surface estate and mineral estate is not entirely unreasonable when it concerns a real property estate that has not been severed. According to the Jensens, a general assessment must include an assessment of the mineral estate because a contrary interpretation of the law would mean that any time there is a tax sale of real property, that has not been severed, the mineral estate would be severed from the surface estate as a result of the sale.

If that were to happen, the delinquent owner would lose the surface estate in a tax sale, but retain the mineral estate. This would not be the result, however, if a general assessment of real property, that has not been severed, is presumed to include the value of the mineral estate.

The problem, however, is that the Jensens and UAC claimed that a general assessment of a severed surface estate includes an assessment of any and all severed mineral estates below that surface estate, even though the mineral estate(s) has separate ownership and the mineral interest owner(s) do not receive notices or bills for property taxes or regarding tax sales.

In their responses to the Jensens' appeal, the Jordans, the Commission, and the Farm Bureau Amici focused their analysis on the issue of whether a general assessment of a severed surface estate is also an assessment of the severed undeveloped mineral interest. Whether a general assessment includes all surface and subsurface interests was not addressed.

Historically, the counties do not issue assessments for severed, undeveloped mineral estates; rather, assessments typically are for the value of the surface estate and improvements thereon. Those assessments and property tax notices are only sent to the owners of the surface estates.

If an assessment for the surface estate were deemed to include an assessment for the severed, undeveloped mineral estate, an owner of a mineral estate will have never received notice of property tax assessments for the overlying surface estate, nor will the owner have received notice from the County when property tax payments have not been made. The owner of an undeveloped mineral estate could lose their property due to nonpayment of property taxes by an unrelated party—the owner of the surface interest.

If assessments of surface estates were deemed to include the value of severed, undeveloped mineral estate, the owners of undeveloped mineral interests could only protect their interests by tracking ownership of the surface estate and making sure that property taxes are being paid—even if that meant paying the property taxes themselves.

Under the Jensens and the UAC interpretation of law, once property is seized for the surface owner's failure to pay property taxes, the owner of the severed mineral estate (if they are even aware of the pending tax sale) could only protect their property interest by paying all property taxes owed by the delinquent owner of the surface estate.

If, as the Jensens and the UAC suggest, the tax sale takes place and conveys the severed, undeveloped mineral interests along with the surface interests, the title conveyed to the tax sale purchaser is clouded due to the lack of constitutionally required notice to the owner of the severed mineral estate.

In *Jordan v. Jensen*, the Utah Supreme Court clearly recognized that the owner of a severed, undeveloped mineral interest has a constitutional right to notice of a tax sale before its interest can be conveyed away.

This holding is instructive when one considers the Jensens and the UAC claim that a general assessment of a surface interest includes an assessment of the severed mineral estate.

Inasmuch as the owner of a severed mineral interest has a constitutional due process right, the Jensens and the UAC claim that a general assessment includes an assessment of the severed mineral interest such that tax sale of a surface right conveys the severed mineral interest appears to have been implicitly rejected by the *Jordan v. Jensen* Court.

The owner of the severed mineral estate in that case had never received property tax bills, notices of failure to pay taxes, or notice of the tax sale. The Utah Supreme Court held that the tax title conveyed at the tax sale was "void to the extent that it purports to convey the Jordans' mineral interest."[18]

Conclusion

Assessing undeveloped mineral estates is replete with problems of practicality and constitutionality. Practical problems with identifying and valuing hidden reserves include the difficulty of predicting the quality and quantity of the reserves.

The only practical way to uniformly estimate value is to begin production, at which point the minerals are subject to assessment by the Commission anyway.

Constitutional requirements of uniformity make valuing undeveloped mineral estates expensive and impractical. As a consequence, severed, undeveloped mineral estates appear to escape assessment and taxation altogether.

Unless and until there are legislative changes requiring assessment of such undeveloped mineral estates, this appears to be the only workable option.

Notes:

1. An action to quiet title is a lawsuit brought in a court having jurisdiction over property disputes, in order to establish a party's title to real property, or personal property having a title, of against anyone and everyone, and thus "quiet" any challenges or claims to the title.
2. The Utah Supreme Court held that a taxing entity's failure to provide adequate, constitutionally required notice to an interested party of a tax sale prevented the triggering of a four-year statute of limitations that would prohibit parties from challenging a tax title holder's ownership the property conveyed by tax sale. This decision overruled a 1955 decision in Hansen v. Morris, wherein the court had held that once the limitations period had passed, the purchaser of a tax deed could retain title against a challenge from an earlier deed holder even when the tax sale had violated due process.
3. Jordan v. Jensen, 2017 UT 1 ¶13.
4. In their brief to the Utah Supreme Court, the Jensens claimed that the district court's decision "would result in nonproducing mineral rights, whether severed or not, never passing by tax sale." According to the Jensens, if county assessments (of unsevered property) do not include the mineral estate, "most tax sales would actually create a severed estate where the delinquent owner retained the minerals." The Jordans and other amici did not address this scenario, but focused on whether an assessment of a surface estate somehow includes an assessment of the severed mineral interest.
5. Utah Const. Art. XIII § 2(1).
6. Utah Code Ann. § 59-2-201(1)(a)(v) and 102(24).
7. Utah Code Ann. § 59-2-102(24) and (27).
8. 17 C.F.R. 210.4-10(a)(6)(2015).
9. 17 C.F.R. 210.4-10(a)(31).
10. Utah Admin. Code R884-24P-10(2015).
11. 17 C.F.R. 229.801(g)(2015) and Industry Guide 7(a)(2).
12. Id. and Industry Guide 7(a)(3).
13. Utah Admin. Code R884-24P-7(B)(2)(2015).
14. Utah State Tax Commission Decision, 03-0937, 33.
15. Utah Const. art. XIII, § 2(1)(a).
16. Ohio Oil Co. v. Indiana, 177 U.S. 90, 202 (1900).
17. Utah Code Ann. § 59-2-301.
18. 2017 UT 1 ¶42.

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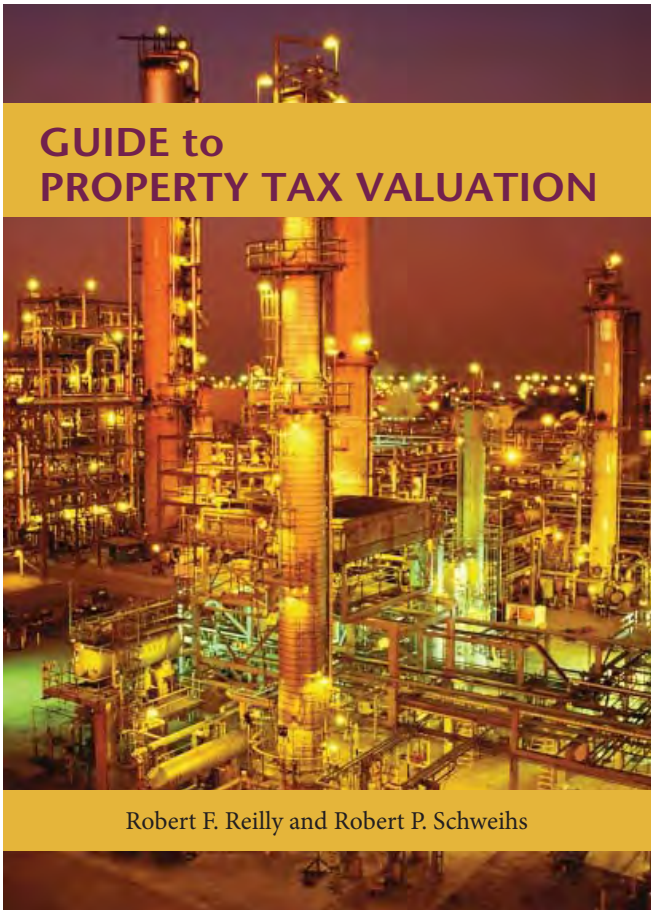

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GUIDE TO PROPERTY TAX VALUATION

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Analytical Differences between Business Valuations, Unit Valuations, and Summation Valuations

Robert F. Reilly, CPA

Taxing authorities and property owners (and even some inexperienced valuation analysts) do not understand the differences between business enterprise valuations, unit principle valuations, and summation principle valuations. The differences between these three types of valuation analyses are both conceptual and practical. There are somewhat similar—but subtly different—generally accepted valuation approaches and methods within these three different types of valuation analyses. However, more importantly, these three different types of valuations analyze fundamentally different bundles of ownership interests. Business valuations value the taxpayer company's debt and equity securities (and their associated investment attributes). Unit valuations value all of the taxpayer company's operating assets in place as of the valuation date. Summation valuations value only specified bundles of taxpayer property in place as of the valuation date. Accordingly, since they value different ownership interests, these three different types of analyses will quantify three different value conclusions for the same taxpayer property owner. This discussion describes at least 14 analytical differences between business valuations, unit valuations, and summation valuations. These differences are particularly relevant for industrial and commercial property valuations prepared for ad valorem property tax purposes.

Introduction

For ad valorem property tax purposes, both taxpayer owner/operators and taxing authorities have to value industrial and commercial properties.

Sometimes the subject taxpayer properties are fairly simple. For purposes of this discussion, the word "simple" means that the subject property includes primarily (if not exclusively) real estate and tangible personal property. Examples of such simple properties may include garden apartment complexes, high rise apartment complexes, high rise office buildings, and strip shopping malls.

Sometimes the subject taxpayer properties are fairly complex. For purpose of this discussion, the word "complex" means that the subject property includes real estate, tangible personal property, intangible personal property, and elements of a going-concern business enterprise Examples of such complex properties may include hospitals and nursing homes, hotels and hospitality facilities, mining and extraction properties, marinas, racetracks, sports stadiums, oil and gas refineries, and chemical and other specialized processing plants.

In addition to the above-listed examples, utility-type properties often represent particularly complex properties for state and local property tax purposes.

For purposes of this discussion, utility-type properties include electric generation, transmission and distribution properties, telecommunications properties, pipelines, natural gas distribution properties, cable television properties, railroads, airlines, and water and wastewater properties.

These utility-type special purpose properties typically include complex bundles of tangible assets and intangible assets. Accordingly, for property tax and other purposes, these types of properties are often valued using the unit (sometimes also called the utility) principle of valuation.

This discussion describes both the conceptual and the practical differences between:

1. the use of the unit valuation principle to value complex (including utility-type) properties and
2. the use of the summation valuation principle to value more simple properties.

This discussion summarizes the procedural differences between unit valuation analyses and summation valuation analyses. And, particularly in the property tax context, this discussion explains when and why the valuation analyst ("analyst") should consider each valuation principle.

Some inexperienced analysts believe that a unit valuation of a bundle of operating property is the same thing as a business (or business enterprise) valuation. This analyst belief is simply incorrect. This discussion considers the quantitative and qualitative differences between a business valuation, a unit valuation, and a summation valuation.

Finally, this discussion focuses on the 14 or so analytical differences between a business valuation, a unit valuation, and a summation (or simple property) valuation.

As this discussion explains, these analytical differences involve valuing different (but reconcilable) bundles of ownership interests. Accordingly, these analytical differences also involve reaching different (but reconcilable) value conclusions for the different subjects of each if the three types of valuation analysis.

Summation Valuation versus Unit Valuation

A summation principle valuation involves the separate valuation of each category or component of assets of the subject property. The total value of the subject property is the additive sum (therefore the name summation) of the values of the individual asset categories.

Whatever categories of assets are encompassed in the subject property are summed (or added in) the summation valuation.

For example, let's assume that the subject property is a central business district ("CBD") office building. If the property subject to taxation includes land, building, and equipment (tangible personal property), then those three categories of assets would be added in the summation valuation. If the property subject to taxation includes land and building only, then only those two categories of assets would be added in the summation valuation. And if only buildings (and not land) is taxed in this jurisdiction, then only that one category of asset would be added in the summation valuation.

So to perform a summation principle valuation, each category of taxpayer asset should be subject to separate identification and separate valuation. That is, the analyst should be able to identify each asset category and value each asset category.

The total value is the taxpayer property (for example, our CBD office building) is a sum of the parts. If the tangible personal property is not subject to taxation, let's say, that asset value is not included in the summation.

Of course, to perform a summation principle valuation, the analyst should have empirical data available. In our example, the analyst should be able to perform a separate cost approach analysis for the property land, building, and equipment.

Likewise, in an income approach analysis, the analyst should be able to assign a separate rental income stream to the land, building, and equipment (even if the subject taxpayer lessor does not lease each asset category separately).

And, in a market approach analysis, the analyst should rely on empirical data related to the sales of land versus buildings versus tangible personal property (even if the current taxpayer owner would not sell the asset categories individually).

A unit principle valuation involves the collective valuation of a bundle of operating assets. The bundle of assets could be located on a single parcel of land, such as an electric generation plant or a chemical processing plant or an oil refinery. Or, the bundle of assets could be located on numerous parcels of land, such as an interstate gas pipeline or a multistate electric transmission system or a national railroad.

Nonetheless, in a unit principle valuation, all of the taxpayer asset categories are valued collectively, in the aggregate, as a single operating unit of assets (therefore the name "unit valuation").

The unit valuation principle is often called the utility valuation principle. This is because most utility-type properties (e.g., energy, communications, transportation, pipeline, water and wastewater services) are typically valued by reference to the unit valuation principle.

For property tax and other purposes, analysts perform unit principle valuations (instead of

summation valuations) for various reasons, including the following:

1. The subject taxpayer property is physically integrated; it may be physically impossible to disaggregate the total unit of assets into separate parcels or asset categories; it would certainly not be the highest and best use ("HABU") of the subject property (e.g., pipeline, gas distribution network, electric transmission lines, railroad) to assume that the property starts and ends in one taxing jurisdiction.
2. The subject taxpayer property is functionally integrated; all of the asset categories operate together in a continuous flow process where the parts cannot function independently; it would certainly not be the HABU of the subject property (e.g., oil or gas refinery, water or wastewater operation) to value each asset component without the contributory value of each other asset component.
3. The subject taxpayer property is economically integrated; the taxpayer does not (and can not) prepare separate financial statements for the different asset components of the unit; for example, a railroad, airlines, or telephone company does not prepare separate financial statements for each taxing jurisdiction that it operates in.
4. The subject unit components operate collectively as a going-concern business enterprise; that is, the assets do not generate rental income exclusively (or primarily) from the use of land, buildings, and equipment only; rather, the total unit of assets generates operating income from the sale of goods and services (and the land, buildings, and equipment is used in the production of those goods and services).
5. The subject unit includes intangible property as well as tangible property; in other words, the subject unit includes intangible assets as well as tangible assets; so in addition to operating land, buildings, and equipment, the subject unit may need to operate intangible assets like the following in order to generate operating business income:
    a. Trademarks and trade names
    b. Proprietary technology
    c. Contracts and licenses
    d. Computer software
    e. Trained and assembled workforce
6. The comparable sale data available to the analyst involves sales of going-concern business enterprise units; that is, the analyst researches the market and finds that all the sales of comparable (to the taxpayer unit) refineries,, pipelines, gas utilities, water utilities, etc., are in fact sales of going-concern business entities; these going-concern business sale transactions include bundles of working capital assets, tangible assets, and intangible assets.
7. The obsolescence analysis components of the taxpayer property cost approach valuation can only be performed on a collective (or total unit) basis; that is, the analyst cannot effectively identify and quantify obsolescence adjustments on an asset-by-asset basis; rather, the subject taxpayer property experiences functional and/or economic obsolescence on a total unit basis.
8. There are statutory, judicial precedent, or administrative ruling requirements to value the subject taxpayer property on a unit valuation basis; that is, many taxing jurisdictions require the assessor and the taxpayer to value the railroad, pipeline, or other utility-type property based on the unit valuation principle for property tax purposes.

Analysts consider each of the above factors when deciding if and when it is appropriate to apply the unit valuation principle (versus the summation valuation principle) to appraise the subject taxpayer property.

In theory, the analyst's final taxpayer property value conclusion should be the same regardless of whether the unit valuation principle or the summation valuation principle is applied.

Of course, this statement assumes that each valuation principle is properly applied and appropriate reconciling adjustments are made in order to appraise the same bundle of operating assets.

However, practically, data constraints often dictate which valuation principle is used.

When only taxpayer summation data are available, that valuation principle will typically be applied. However, when only taxpayer unit valuation data are available, then the unit valuation principle will typically be applied.

Going-Concern Valuations

Unit principle valuations involve valuing a bundle (sometimes called a universe) of operating assets

on a going-concern basis. Inexperienced analysts sometimes confuse (1) this going-concern premise of value with (2) the valuation of a going-concern business enterprise.

However, they are two fundamentally different concepts.

A premise of value is a hypothetical transaction structure. Some common alternative premises of value include the following:

1. Value in continued use, on a going-concern basis
2. Value in place, but not in current use
3. Value in exchange, as a voluntary disposition of assets
4. Value in exchange, as a voluntary liquidation of assets
5. Value in exchange, as an involuntary liquidation of assets

The premise of value indicates how (under what assumed transactional circumstances) the sale or transfer of the subject bundle of assets will occur.

In a property tax context, the selection of a premise of value may be determined by statutory authority, judicial precedent, or administrative ruling.

For example, some jurisdictions may require that taxable assets be valued based on a going-concern premise of value. Alternatively, other taxing jurisdictions may require that taxable assets be valued based on a value in exchange premise of value.

Outside of the property tax context, the selection of a premise of value is often determined based on the analyst's HABU analysis. That is, the analyst will apply the premise of value to the analysis that will conclude the highest indication of value for the subject bundle of operating assets.

Some analysts confuse the above-listed going-concern premise of value (also called the value in continued use premise of value) with the valuation (or the sale) of a going-concern business enterprise.

In the first instance, a specified bundle of operating assets will be sold together—as an entire unit. Most likely, that specified bundle of assets will be operating to generate some measure of income. However, the premise is that the specified bundle of assets (and only that specified bundle of assets) will be transferred. But, all of those assets in the bundle will be sold together, at one time.

In the second instance, a going-concern business enterprise is sold. That going-concern business enterprise usually has a legal form—a partnership, a corporation, a limited liability company, and the like.

The securities of the going-concern business enterprise are sold. That is, the taxpayer company's stock and debt instruments are sold. Typically, the business operating assets are not sold.

For example, let's assume that a business entity called the Alpha to Omega Railroad ("AORR"). AORR owns track, yards, locomotives, rolling stock, and maintenance buildings. Let's assume that the AORR business enterprise is sold, say from one private equity investor to another private equity investor.

The AORR still owns the same real estate and tangible personal property. The AORR operating assets did not sell at all. The stock and debt securities of the AORR did transfer from a seller to a buyer. In that transfer of a going-concern business, a bundle of ownership interests transferred. And the buyers paid the sellers for more than the AORR real estate and tangible personal property—operating on a going-concern basis.

Rather, in this simple example, the buyers are paying the seller for the ownership of the following assets of AORR:

1. Financial (working capital) assets
2. Owned and leased real estate

3. Owned and leased tangible personal property
4. Identifiable intangible personal property
5. Intangible value in the nature of goodwill
6. Intangible attributes (such as income tax attributes, investment liquidity, investment diversification, investment diversability, etc.)

So, value as a going concern indicates the transactional circumstances under which a specific bundle of assets will sell. The value of a going-concern business is the corporate business enterprise that owns all of the entity's tangible assets and intangible assets in place—and the present value of all of the entity's future business opportunities.

While the two phrases may sound similar to the inexperienced analyst, the two different valuations include two fundamentally different bundles of ownership interests

Differences between Business Value, Unit Value, and Summation Value

When comparing business enterprise valuations, unit principle valuations, and summation principle valuations, there are both (1) valuation purpose and objective differences and (2) valuation analysis and variables differences.

Next, this discussion considers some of the valuation purpose and objective differences. Then, this discussion considers some of the valuation analysis and variables differences.

Valuation Purpose and Objective Differences

Typically, the subject of a business valuation is one of the following:

1. The total invested capital of the subject business
2. The total equity structure of the subject business
3. The total common equity of the subject business
4. A particular equity ownership interest in the current business

That is, the business valuation typically focuses on the "right hand side" of the taxpayer company's balance sheet. That is, the business valuation focuses on the "liabilities and owners' equity" section of the taxpayer company's balance sheet.

Arguably, the most common objective of a business valuation is the total invested capital (or "TIC") of the subject business. The TIC is also called the total capital structure of the company. The total capital structure typically includes all of the capital components for which there is a measurable cost of capital.

These capital structure components commonly include the following:

1. Long-term interest-bearing debt
2. Preferred stock
3. Common stock

Considering the remaining components of the "right hand side" of a balance sheet, the TIC typically excludes current liability accounts, non-interest-bearing liability accounts (i.e., nondebt instrument liabilities), and noncost equity components (e.g., noncontrolling interests).

The total equity structure would typically include all classes of the company's equity securities, including preferred stock and all classes of common stock.

The total common equity structure would typically include all classes of the company's common stock. Many (but not all) companies have multiple classes of common stock outstanding.

The final common business valuation subject would be a particular ownership interest in a particular class of securities.

For example, the valuation subject could be a 40 percent noncontrolling ownership interest in the company's Class B nonvoting common stock. Or, the valuation subject could be the company's Series A subordinated debentures that are due in January 2022.

Such business valuations are often performed for transactional purposes. That is, the valuation objective is a proposed acquisition price or a proposed merger equity exchange ratio.

Of course, business valuations could also be performed for various financial accounting, income taxation, gift and estate taxation, litigation, and other purposes. However, the objective of the business valuation is to conclude a defined value for the company's debt and equity security instruments.

And, these debt and equity securities (and the TIC business value conclusion) are typically estimated independent from the asset structure of the subject company. That is, the business

value concludes the capital structure value of the company without any analysis of the asset structure of the company.

In contrast to a business valuation, both the unit valuation and the summation valuation focus on the "left hand side" or the "assets" side of the taxpayer company's balance sheet.

The unit valuation concludes the total value of the taxpayer company's operating assets based on aggregate or collective valuation analyses.

The summation valuation concludes the independent values of the company operating assets based on separate or individual valuation analyses. The summation valuation analysis concludes a total value of the company operating assets by adding the independent values of the individual asset categories.

The unit valuation concludes the total value of all of the taxpayer company's operating assets.

Therefore, the unit value will typically include the following components:

1. Current (financial) asset accounts
2. Real estate and real property rights
3. Tangible personal property
4. Identifiable intangible assets
5. Intangible value in the nature of goodwill
6. Intangible investment attributes

In contrast, the summation value only includes the individual company asset categories that are:

1. separately appraised and
2. added in to the summation procedure.

Unless other company assets and components are specifically included in the analysis, the summation value will typically include only the following assets:

1. Real estate and real property rights
2. Tangible personal property

Unit principle valuations are not typically prepared for transactional purposes. Typically, the sale of a going-concern business includes a few value components that are not included (or that are not supposed to be included) in the unit valuation.

For example, the going-concern business value includes the investor expectations of the present value of future income from future tangible assets and intangible assets that are not yet in place as of the valuation date. This value component is sometimes called the present value of growth opportunities—or PVGO.

The unit value is supposed to include only the value of tangible assets and intangible assets that actually exist as of the valuation date.

Accordingly, unit principle valuations are prepared primarily for property tax purposes. In fact, the unit principle of property valuation is primarily a property tax valuation concept.

In comparison, summation principle valuations are performed for a variety of purposes. While summation valuations are not typically performed for merger and acquisition transaction pricing purposes, they are performed any time the property owner wants to know the value of the company's individual asset accounts.

This information is often used for financial accounting and income tax accounting purposes. And, this information can also be used for asset-based financing purposes, for investor's asset contributions to the formation of a new business venture, and for investor's asset distributions when the dissolution of a business venture occurs.

And, of course, summation principle valuations are appropriate in a property tax context when only certain asset categories (e.g., real estate and tangible personal property) are subject to property taxation.

Valuation Analysis and Variables Differences

There are different generally accepted valuation approaches, methods, and procedures used in a business valuation, a unit valuation, and a summation valuation.

And, there are different valuation variables that are used in a business valuation, a unit valuation, and a summation valuation. Many of these differences are summarized in the next section of this discussion.

Almost all of these differences are explained by the fact that each type of valuation is intended to estimate a defined value for a different bundle of ownership interests:

1. The business value includes all of the company debt and equity instruments (and their associated investment attributes)
2. The unit value includes all of the company operating assets in place as of the valuation date
3. The summation value includes only the individual asset categories specifically identified in the summation process.

Exhibit 1 presents a simplified illustration of the different ownership interests included in the different types of valuation analyses.

Exhibit 1 presents the assets, liabilities, and equity accounts of a hypothetical Typical Taxpayer Corporation.

In Exhibit 1, all of the company accounts are assumed to be stated at a specifically defined value. That defined value could be fair value, fair market value, or any other value-based standard (i.e., not at historical cost).

Exhibit 1 is a valuation-based balance sheet, and not a U.S. GAAP-based balance sheet.

Exhibit 1
Typical Taxpayer Corporation
Statement of Financial Position
Current Valuation Basis
As of January 1, 2018
(in $ millions)

ASSETS		LIABILITIES AND OWNERS' EQUITY	
Current Assets (A):		Current Liabilities (G):	
Cash	50	Accounts Payable	50
Receivables	50	Salaries Payable	20
Inventory	100	Accrued Expense	30
Total Current Assets	200	Total Current Liabilities	100
Net Plant, Property, and Equipment (B):		Long-Term Debt (H):	
Land	100	Bonds Payable	100
Buildings	200	Notes Payable	100
Machinery and Equipment	300	Mortgages Payable	200
Total Plant, Property, and Equipment	600	Total Long-Term Debt	400
Intangible Assets (C):		Other Liabilities (J):	
Patents	100	Pension Liabilities	200
Copyrights	100	Post-Retirement Health Obligations	100
Trademarks	100	Deferred Income Taxes – Credits	100
Trade Secrets	100	Total Other Liabilities	400
Goodwill	200		
Total Intangible Assets	600	Total Liabilities (J)	900
Other Assets (D):		Owners' Equity (K):	
Unconsolidated Subsidiary Investments	200	Preferred Stock	100
Deferred Income Taxes – Debits	200	Common Stock	1,000
Total Other Assets	400	(includes the value of investment liquidity, diversification, limited liability,	
Intangible Attributes (E)	200	PVGO, income tax attributes, etc.)	
Total Assets (F)	2,000	Total Liabilities and Owners' Equity (L)	2,000

In this simplified example, we assume that the analyst can value each of the company's tangible asset and intangible asset categories—including goodwill.

That is, in this example, the $200 goodwill value is the result of a discrete valuation analysis. It is not the mathematical residual from a transaction purchase price or an estimated business value.

In Exhibit 1, the concluded business enterprise value would be $2,000. This value would include net working capital (A minus G) of $100, long-term debt (H) of $400, other liabilities (J) of $400, and total owners' equity (K) of $1,100.

The common stock value would typically include such investment attributes as common stock liquidity, investors' portfolio diversification, investors' limited liability, expected appreciation in stock value, any income tax attributes related to both the company and the shares, the expectation of future merger and acquisition activity, and PVGO related to expected future assets.

On a GAAP-basis balance sheet, the above-listed investment attributes included in the common stock value are included in the goodwill account. This is because, under U.S. GAAP, goodwill is measured as the residual of the purchase price (or the business value) less the identifiable tangible and intangible assets.

In this example, the analyst independently valued goodwill at $200. Therefore, the residual amount is recorded in a non-GAAP valuation-based account called "Intangible Attributes (E)."

Such a valuation-based account would not be recorded on a GAAP-based balance sheet. Rather, for GAAP accounting purposes, the Typical Taxpayer Corporation residual goodwill amount would be $400.

In Exhibit 1, the concluded total asset unit value would be $1,800. This $1,800 unit value would include the following asset categories: current assets (A) of $200; plant, property, and equipment (B) of $600; intangible assets (C) of $600; and other assets (D) of $200.

While the total unit value may be $1,800, this value may include asset categories that are not subject to property tax in the subject jurisdiction.

For example, if working capital accounts, intangible assets, and other (nontangible) assets are not subject to property tax, then the taxable asset unit value of taxable assets would be adjusted as presented in Exhibit 2.

In any event, the intangible attributes component of the total business value would typically not be included in the unit value conclusion. This statement is true for two reasons.

First, the intangible attributes category does not represent assets of any kind. Intangible attributes are not assets at all. They are investment features.

Second, intangible attributes do not relate to assets that exist as of the valuation date. To the extent some part of the intangible attributes category can be associated with any assets, they would be the investors' expectations of tangible assets or intangible assets that the subject company may own or operate in the future.

Finally, in Exhibit 1, the concluded summation value would be $600. This conclusion assumes that the analyst includes only real estate and tangible personal property in the summation valuation.

Accordingly, the summation principle valuation includes the value of all of (and only) the Typical Taxpayer Corporation tangible assets in place as of the valuation date.

The remainder of this discussion summarizes the 14 or so analytical differences between business valuations, unit valuations, and summation valuations.

14 Analytical Differences

Difference Number One

As mentioned above, each type of valuation encompasses a different bundle of ownership interests. Accordingly, the analyst would expect different quantitative conclusions from a business enterprise valuation, a unit principle valuation, and a summation principle valuation.

The business enterprise valuation analyzes all of the subject company's debt and equity securities. All investment attributes related to debt and equity security analysis will be included in the business value.

The debt and equity securities are typically valued on a marketable ownership interest level of value. That means, these securities are valued as if they were actively traded on the public securities exchanges.

Theoretically, the value of these securities is the present value of all of the future income expected to be generated by the subject company.

That expected future income will come from:

1. tangible assets in place on the valuation date,
2. intangible assets in place on the valuation date,
3. expected future tangible assets not yet in place on the valuation date, and
4. expected future intangible assets not yet in place on the valuation date.

The unit principle valuation encompasses all of the company's operating assets in place on the valuation date. The business value includes both operating assets and nonoperating assets. And, the business value includes investor expectations of future tangible and intangible assets.

Also, it is noteworthy that the unit value may include asset categories that are exempt from property taxation in the subject taxing jurisdiction, such as working capital assets, intangible assets, investments in subsidiaries and joint ventures, and the like.

The summation principle valuation encompasses only the specifically identified bundle of assets that were separately considered in the valuation analysis.

Difference Number Two

There are different generally accepted valuation approaches, methods, and procedures in the different types of valuations.

The generally accepted business valuation approaches and methods include the following:

1. Income approach
   - Discounted cash flow method
   - Direct capitalization method
2. Market approach
   - Guideline publicly traded company method
   - Guideline merged and acquired company method
3. Asset-based approach
   - Asset accumulation method
   - Adjusted net asset value method

The generally accepted unit valuation approaches and methods include the following:

1. Income approach
   - Yield capitalization method
   - Direct capitalization method
2. Market approach
   - Stock and debt method
   - Comparable transaction method
3. Cost approach
   - Original cost less depreciation method ("OCLD")
   - Replacement cost new less depreciation method ("RCNLD")
   - Reproduction cost new less depreciation method ("RPCNLD")

Exhibit 2
Typical Taxpayer Corporation Adjusted Unit Value as of January 1, 2018

Total Asset Unit Value			1,800
Less:	Working Capital Assets	200	
	Intangible Assets	600	
	Other Assets	400	
	Assets Exempt from Taxation	1,200	
Equals:	Unit of Taxable Assets		600

The generally accepted summation valuation approaches and methods include the following:

1. Income approach
   - Yield capitalization method
   - Direct capitalization method
2. Sales comparison approach
   - Direct sales comparison method
3. Cost approach
   - Replacement cost new less depreciation method
   - Reproduction cost new less depreciation method

First, an explanation of each of the above-listed approaches and methods is beyond the scope of this discussion. However, many of the analytical differences in the implementation procedures related to the above-listed methods will be discussed below.

Second, it is noteworthy that the business valuation asset-based approach is not the property valuation cost approach.

Again, a description of all of the differences between these two different valuation approaches is beyond the scope of this discussion. However, these differences are well-documented in the valuation professional literature.

Difference Number Three

In any income approach analysis performed, the level of income subject to capitalization is fundamentally different between a business valuation, a unit valuation, and a summation valuation.

In a business valuation, typically all of the company's income is subject to capitalization. This amount includes operating income and nonoperating income. And, all of the company's operating income is generated from the entity's sales of goods and services to its customers. That is, the operating income results from the entity's production of goods and services.

In a unit valuation, typically only the company's operating income is subject to capitalization. This operating income results from the company's production of goods and services. However, nonoperating income is excluded from the unit valuation analysis.

In a summation valuation, typically only the rental income generated from the rental of the subject real estate and tangible personal property is subject to capitalization. This rental income could be actual income (say from the actual rents generated by a shopping mall) or hypothetical income (say from the rents generated by the hypothetical lease of an oil refinery).

However, the summation principle income approach analysis does not include the income from the property owner/operator's production of goods and services to the company's customers.

Difference Number Four

In any income approach analysis, the level of the expected income long-term growth ("LTG") rate is fundamentally different between a business valuation, a unit valuation, and a summation valuation.

In a business valuation, typically the income LTG comes from the company's long-term financial or strategic plan. That LTG rate can be compared to guideline public company estimated LTG rates and/or the owner/operator industry estimated LTG rate.

The business valuation LTG rate typically considers income from the following:

1. Assets currently in place
2. Replacement assets as current assets retire
3. Expansionary capital expenditure assets
4. Potential mergers and acquisitions
5. Potential new products, services, and business lines

In a unit valuation, typically the income LTG rate relates to inflation growth only. In other words, typically there is no real growth included in the unit value LTG rate.

The unit value encompasses only the company's assets in place (and their direct replacement assets). The unit value should not include expansionary new properties, new plants, and new facilities. That is, the LTG rate should be supportable from the operation of the assets in place as of the valuation date.

In some industry sectors, the unit value LTG rate may be zero. In a rate-based regulated utility, for example, the only way for the taxpayer company to generate positive LTG is to add new incremental assets to the company's rate base.

Such incremental assets (and their associated income growth) should not be included in the unit of operating assets that are subject to taxation on a particular valuation date.

In a summation valuation, typically the LTG rate relates to the real or hypothetical lease of the existing real estate and tangible personal property only. That is, the summation analysis does not include any LTG related to replacement assets, incremental assets, merged or acquired assets, or new business assets.

Difference Number Five

In any income approach analysis, the level of expected future capital expenditures is fundamentally different between a business valuation, a unit valuation, and a summation valuation.

In all types of business or property valuations, the level of expected capital expenditures should be reconcilable to the income expected LTG rate.

In a business valuation, typically the expected future capital expenditures both:

1. replace the current levels of property, plant, and equipment as those assets wear out over time and
2. provide for expansionary plant, property, and equipment—needed to generate real revenue and production growth and to accommodate new products and new (or acquired) lines of business.

In a unit valuation, typically the expected future capital expenditures have one function: to replace the cohort of real estate and tangible personal property included in the current unit as these tangible assets wear out.

In a summation valuation, typically the level of expected future capital expenditures is much less than in a unit valuation. In the summation principle valuation, the capital expenditures are intended to maintain the real estate and tangible personal property in place throughout their useful lives—but not to provide replacement assets independently.

For all three types of valuations, the level of depreciation expense should be internally consistent within the analysis with the level of expected capital expenditures.

Difference Number Six

In any income approach analysis, the selected discount rate or capitalization rate is fundamentally different between a business valuation, unit valuation, and summation valuation.

In all valuation analyses, the selected discount/capitalization rate should be consistent with the level of income subject to capitalization. And, the selected discount/capitalization rate should be consistent with the bundle of ownership interests that is the subject of the valuation.

In a business valuation, typically the discount rate is based on the subject company's weighted average cost of capital ("WACC").

The WACC components may come from publicly traded company and capital market return on investment data. The direct capitalization rate is typically the WACC discount rate minus the expected LTG rate.

In a unit valuation, typically the discount rate is also based on the subject company's WACC. However, the selection of the WACC components may consider the valuation attributes of the unit. Guideline company and capital market return on investment data are based on business enterprise growth rates.

As explained above, the unit LTG rate may be less than the company LTG rate.

Accordingly, the unit WACC components may be adjusted for the relative growth rates. The direct capitalization rate is typically the WACC discount rate minus the unit-specific LTG rate.

In a summation valuation, typically the yield capitalization rate is based on the bond of investment method. However, both the equity yield rate and the mortgage debt rate for property owners are different from the equity return on investment and public bond rate for business investors.

In addition, the debt to equity ratio for a company's capital structure is often different from the mortgage to equity structure for a property financing.

And, the direct capitalization rate could be based on a growth-adjusted yield capitalization rate, or it could be extracted from comparable property sales data.

Difference Number Seven

In any market approach analysis, the selected pricing multiples will be different between a business valuation, a unit valuation, and a summation valuation.

Of course, in all types of valuation analyses, the selected pricing multiples should be consistent with:

1. the level of income that the multiple is applied to,
2. the expected remaining useful life ("RUL") of the income that the multiple is applied to, and
3. the expected LTG of the income that the multiple is applied to.

In a business valuation, the pricing multiples are typically extracted from either selected guideline publicly traded company multiples or selected merged and acquired ("M&A") company transaction multiples.

In all cases, the capital-market-derived pricing multiples should be carefully analyzed and the subject-specific pricing multiples should be based on the following:

1. Relative growth rates
2. Relative profit margins
3. Relative returns on investment
3. Relative risk attributes

In a unit valuation, the pricing multiples may also be extracted from either selected guideline publicly traded companies or guideline M&A transactions. However, the subject-specific unit pricing multiples will likely be different than the subject-specific business pricing multiples.

This is because the relative unit growth rates, profit margins, investment returns, and risk measures will be different than the same financial metrics for the taxpayer business enterprise.

Therefore, the unit financial metrics will compare differently to the guideline company/transaction financial metrics—than would the business enterprise financial metrics.

In a summation valuation, the pricing multiples are not extracted from guideline public companies or guideline M&A transactions. Rather, the comparative pricing multiple data are extracted from the sales of comparable bundles of operating assets.

In other words, the analyst extracts pricing multiples from sales of comparable real estate and tangible personal property.

Difference Number Eight

In any market approach valuation, the selected financial metrics will be different in a business valuation, unit valuation, and summation valuation.

That is, the measure of income that the multiples are applied to are different among a business valuation, unit valuation, and summation valuation.

In a business valuation, the income metric subject to the multiplication process is total company income (both operating income and nonoperating income from goods and services—and from other sources).

The common income metrics used in the business valuation market approach analysis include the following:

1. EBIT
2. EBITDA
3. Debt-free net income (EBIT minus taxes)
4. Debt-free net cash flow (EBITDA minus taxes)

In a unit valuation, the income subject to the multiplication process is the unit operating income only (operating income only related to the production of goods and services).

The common income metrics used in the unit valuation market approach analysis include the following:

1. EBIT
2. EBITDA
3. Net operating income
4. Net cash flow

In a summation valuation, the income subject to the multiplication process is the (real or hypothetical) rental income from the (real or hypothetical) lease of the specific real estate and tangible personal property.

The common income metrics in the summation valuation market approach analysis include the following:

1. Gross rental income
2. Net rental income
3. Net operating income
4. Net cash flow

Difference Number Nine

The asset-based approach applied in a business valuation is fundamentally different from the cost approach applied in a unit valuation or a summation valuation.

In a business valuation, the asset-based approach may be used to conclude the value of the subject company's:

1. total assets,
2. total invested capital, or
3. total equity.

The fundamental principle of the business valuation asset-based approach follows:

Defined value of the total company assets
– Defined value of the total company liabilities
= Defined value of the total company equity

In the asset-based approach, total assets include financial assets, tangible assets, and intangible assets. In the asset-based approach, total liabilities include recorded liabilities and contingent liabilities.

In the asset-based approach, each asset category may be valued by the application of the market approach, the cost approach, or the income approach. It is common that different asset categories will be valued by reference to different property valuation approaches.

And, it is very common that at least one intangible asset is valued by reference to the income approach. That intangible asset (which is often—but not always—goodwill) may be valued using one of these income approach valuation methods:

1. The capitalized excess earnings method ("CAPM")
2. The multiperiod excess earnings method ("MEEM")

In a unit valuation, the cost approach is used to estimate the value of the total bundle of operating assets included in the unit. Depending on the analyst's application of the cost approach (and particularly on the quantification of economic obsolescence, if any), the unit value may include tangible assets only or tangible assets and intangible assets.

In a summation valuation, the cost approach is used to estimate the value of the specifically identified bundle of real estate and tangible personal property included in the summation analysis.

The unit valuation and the summation valuation may include any of the generally accepted cost approach valuation methods.

However, these methods do not encompass all of the company assets and all of the company liabilities considered in the asset-based business valuation approach.

Difference Number Ten

The analyst may apply different cost metrics in the business valuation, unit valuation, and summation valuation analyses.

The cost approach is not a generally accepted business valuation approach. The cost approach

may be used to value individual tangible asset or intangible asset categories in the application of the asset-based business valuation approach. For this purpose, the analyst may use the RCNLD method or the RPCNLD method. Except for working capital accounts, the OCLD would rarely be used in an asset-based approach business valuation analysis.

In the unit valuation, the analyst may most commonly use the OCLD method. Since all of the company's assets in place are valued collectively, OCLD often provides a meaningful starting point (although not necessarily a stopping point) in the cost approach analysis.

While less common than the OCLD, the RCNLD and the RPCNLD may also be used in the unit principle valuation.

In the summation valuation, the RCNLD and the RPCNLD methods are commonly used. The OCLD method is not commonly used in a summation principle valuation.

Difference Number Eleven

Asset RULs and corresponding depreciation lives and rates are often different in the business valuation, unit valuation, and summation valuation.

In a business valuation, the analyst typically uses the RULs, asset depreciation lives, and asset depreciation rates that the company already uses for financial accounting purposes. The analyst typically assumes that the market participant buyer/new owner of the subject company will maintain the same depreciation policies and practices as the current business owner/operator.

The cost approach valuation is one relatively small component of the asset-based approach valuation of all of the company financial, tangible, and intangible assets. Accordingly, changing the cost approach depreciation rates and lives typically does not have a material impact on the overall unit value.

In a unit valuation, the analyst may use the company's current RULs, depreciation lives, and depreciation rates—particularly in an OCLD method analysis.

To the extent that there is additional depreciation that is not recognized in the OCLD measurement, that value impact will be recognized in the unit valuation analysis of functional obsolescence and economic obsolescence.

If the analyst uses the RCNLD method or RPCNLD method in the unit valuation, the analyst will typically select depreciation lives and rates that

reflect the physical, functional, or economic RULs of the subject operating assets.

In the summation valuation, the analyst will estimate an RUL and depreciation life end rate for each category of subject property. These estimates may not be the same as the depreciation policies and practices that the company uses for functional accounting purposes.

The summation analysis depreciation lives and rates are based on the analyst's best estimate of the subject property physical, functional, or economic RUL.

Difference Number Twelve

There are different measurements of obsolescence in the cost approach analyses included in a business valuation, unit valuation, and summation valuation.

In a business valuation, the obsolescence should relate to—and should be measured at—the overall business enterprise level. That is, the obsolescence should relate to the entire taxpayer company business entity.

In the income approach, the obsolescence is accounted for in implicitly both the enterprise income projection and the cost of equity capital component of the WACC.

In the market approach, the obsolescence is accounted for implicitly in both the enterprise income included in the multiplication process and in the selected pricing multiple.

In the asset-based approach, the obsolescence is accounted for explicitly in the cost approach values of both the taxpayer tangible assets and the taxpayer intangible assets.

In the business valuation asset-based approach, obsolescence is often measured by the income shortfall method. This analysis compares the enti-

ty's actual return on assets to the entity's required return on assets.

The calculation of the return on assets should include a fair rate of return on all of the business entity's asset categories. These business entity asset categories include working capital (financial assets, real estate and tangible personal property, and intangible assets.

In a summation valuation, the obsolescence should relate to—and should be measured at—the subject unit of operating assets level. That is, the obsolescence should relate to the subject unit of tangible assets and intangible assets in place as of the valuation date.

In the income approach, the obsolescence is accounted for implicitly both in the unit operating income and the unit discount/capitalization rate.

In the market approach, the obsolescence is accounted for implicitly both in the unit operating income and the selected public company/transaction pricing multiples.

In the cost approach, the obsolescence is accounted for explicitly in the unit principle valuation of the tangible assets and identifiable intangible assets.

In the unit valuation cost approach, obsolescence is often measured by the income shortfall method. This analysis compares the unit's actual return on assets to the unit's required return on assets.

The calculation of the return on assets should include a fair return on all of the unit's real estate, tangible personal property, and identifiable intangible assets.

In a summation valuation, the obsolescence should relate to—and should be measured at—the specific real estate and tangible personal property level.

In the income approach, the obsolescence is accounted for implicitly both in the specific property rental income subject to capitalization and in the specific property yield/capitalization rate.

In the sales comparison approach, the obsolescence is accounted for implicitly both in the specific property rental income subject to the multiplication process and in the selected transaction-derived pricing multiple.

In the cost approach, the obsolescence is accounted for explicitly in the summation principle valuation of the individual real estate and tangible personal property.

In the summation valuation cost approach, the obsolescence should be specific to the individual property. This obsolescence may be measured by reference to the income shortfall method (in addition to other methods).

In the income shortfall method, the analyst compares the property's actual return on investment to a market-derived return on investment. Both the actual and the market-derived returns on investment should relate specifically to the subject property category.

Difference Number Thirteen

The valuation synthesis and conclusion (or valuation reconciliation process) is different for a business valuation, a unit valuation, and a summation valuation. There are two principal procedures in the valuation synthesis and conclusion ("VSC") process.

First, the analyst considers the value indications from each valuation approach and method performed. The analyst considers if all of the value indications are internally inconsistent. In particular, the analyst looks for—and attempts to explain—any aberrational value indications.

Second, the analyst assesses the various valuation analyses and assigns a weighting (implicitly or explicitly) to the value indications in order to reach a final value conclusion. The assessment process considers both:

1. the quality and quantity of the availability for each analysis and
2. the analyst's level of confidence in each valuation analysis and in each value indication.

In a business valuation, the analyst assigns the most weight to the valuation approaches and methods that market participants primarily rely on in their transactional analyses.

The analyst will consider the size and type of the subject company, the subject industry dynamics, the quantity and quality of public company and M&A transactional data, and the purpose and objective of the valuation.

In a unit valuation, the analyst will consider the composition of the bundle of operating assets included in the subject unit.

The analyst will consider the size of the subject unit, the industry that the unit operates in (i.e., the valuation approaches relied on by the market participants in that industry), the quality and quantity of available empirical data, and the purpose and objective of the unit valuation.

In the summation valuation, the analyst will consider the specific real estate and personal property subject to appraisal.

The analyst will weight the valuation approaches—and the value indications—so as to emulate how market participants would analyze and transact that particular bundle of real and personal property.

Difference Number Fourteen

In the VSC process, the analyst will specifically recognize the different bundles of ownership rights included in a business valuation, unit valuation, and a summation valuation.

The analyst will assign a weighting to the valuation approaches and value indications that best reflects the three fundamentally different bundles of assets included in these three fundamentally different types of analyses.

The subjects of the business valuation are the debt and equity securities of the company. The analyst will typically assign the most weight to the valuation approaches and methods that directly conclude the value of the subject debt and equity securities.

In particular, the analyst will consider how market participants would price the purchase or sale of an ownership interest bundle of debt instruments and equity instruments.

These ownership interests include the income that will be generated by the following:

1. All of the working capital, tangible assets, intangible assets, and other/investment assets in place
2. The company's intangible investment attributes
3. The present value of future income from future tangible assets and intangible assets

The subjects of a unit valuation are the operating assets of the company that are in place as of the valuation date. The bundle of operating assets includes all of the working capital/financial assets, real estate and tangible personal property, and intangible assets that are operated by the going-concern company.

However, it is noteworthy that not all of these unit principle bundle of assets may be subject to property tax in a particular taxing jurisdiction.

The analyst will give more weight to the valuation approaches and methods that directly value the intended bundle of operating assets.

And, the analyst will give less weight to the valuation approaches and methods that:

1. include extraneous ownership interests and investment attributes or
2. exclude asset categories intended to be included in the subject bundle of assets.

The subject of a summation valuation is a specifically identified bundle of real estate and tangible personal property. The analyst will consider how market participants would price the purchase or sale of that particular bundle of assets.

And, the analyst would assign the most weight to valuation approaches and methods that directly value the subject (and only the subject) identified real estate and tangible personal property.

Summary and Conclusion

Particularly within the context of property taxation, inexperienced analysts (and taxing authorities and taxpayer property owners) sometimes confuse business valuations, unit valuations, and summation valuations. This confusion often occurs in industries where industrial or commercial taxpayer properties are valued by reference to the unit principle (or utility principle) of property tax valuation.

Examples of such industries include transportation, communications, pipelines, oil and gas, energy, mining and extraction, water and waste water, and many others.

However, analysts should understand that there are different—but generally accepted—valuation approaches and methods that apply in business valuations, unit valuations, and summation valuations.

And, there are at least 14 analytical differences in the application of these three fundamentally different types of valuation analyses.

The most important difference (which is both conceptual and practical) is that the three difference types of valuations analyze and appraise three fundamentally different bundles of ownership interest.

This discussion described some of the ways to reconcile these three different bundles of ownership interests.

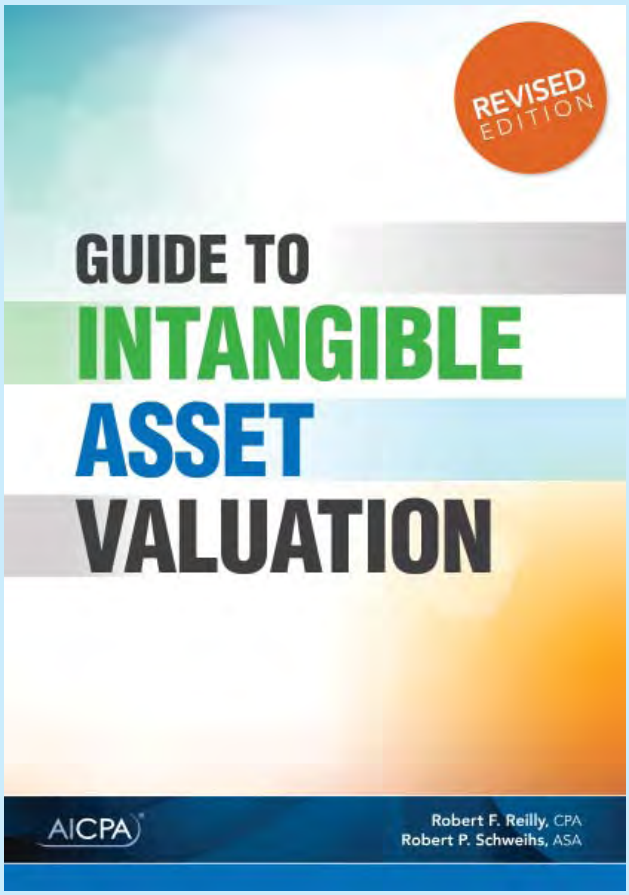
Analysts involved in property tax valuations—and taxing authorities, taxpayer property owner/operators, and tax counsel—should be aware of the differences between business enterprise valuations, unit principle valuations, and summation principle valuations.

Robert Reilly is a managing director of the firm and is resident in our Chicago practice office. Robert can be reached at (773) 399-4318 or at rfreilly@willamette.com.

We are pleased to announce the Revised Edition of . . .

Guide to Intangible Asset Valuation

by Robert F. Reilly and Robert P. Schweihs



This 745-page book, originally published in 2013 by the American Institute of Certified Public Accountants, has been improved! The book, now in hardback, explores the disciplines of intangible asset valuation, economic damages, and transfer price analysis. *Guide to Intangible Asset Valuation* examines the economic attributes and the economic influences that create, monetize, and transfer the value of intangible assets.

Robert Reilly and Bob Schweihs, Willamette Management Associates managing directors, discuss such topics as:

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- Structuring the intangible asset valuation, damages, or transfer price assignment
- Generally accepted valuation approaches, methods, and procedures
- Economic damages due diligence procedures and measurement methods
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- Valuation of specific types of intangible assets (e.g., intellectual property, contract-related intangible assets, and goodwill)

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Guide to Intangible Asset Valuation

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Best Practices

The Application of a Guideline Publicly Traded Company Risk Adjustment

Kevin M. Zanni

Depending on the valuation assignment facts and circumstances, the valuation analyst ("analyst") may encounter a unique valuation problem: a problem that is well outside the ordinary scope of typical valuation issues. Unique problems provide the analyst an opportunity to develop thought leadership solutions in a manner that (1) provides value to the client and (2) assists the reader of the valuation report. These thought leadership solutions (1) can provide context to the identified problems and (2) can help to measure the effect of the problem on the subject investment interest.

Introduction

Sometimes, during the process of a valuation assignment, a unique issue or problem may be identified. The problem may be well outside the normal operations of the subject business enterprise. In addition, the problem may be well outside the scope of normal operations of most comparative-type business operations. In most cases, such unique problems often require unique solutions.

This discussion provides a summary of one method that a valuation analyst ("analyst") may consider as a means to quantify the effect that a significant negative event may have on a company's stock value. For example, in the illustrative case described below, the company management has just learned of a U.S. Department of Justice investigation. The investigation relates to the company's government contracting business operations. The negative event occurred a little more than one year prior to the valuation date.

First, this discussion reviews the subject company operations at the time of valuation. Second, this discussion identifies and summarizes the unique problem at issue. Third, this discussion presents several possible solutions to address the effect that the unique problem had on subject stock valuation. And, finally, this discussion examines one possible valuation solution and describes how that solution may be implemented.

Hypothetical Company Description

Foxtrot Tango Charlie Company ("FTCC") was incorporated in 1975 in Ohio. From its beginning, the company developed and sold products for the aerospace industry, primarily electromechanical devices. In 1984, the company acquired the military products business of Allen Co.

FTCC manufactures products to customer specifications, which often involve intricate handcrafted details. Until approximately 1990, FTCC generated nearly 75 percent of its total revenue as a subcontractor for the domestic defense industry.

In response to the U.S. government decision to decrease defense spending, FTCC management decided to diversify by developing products for the commercial aircraft market. After that time, the FTCC revenue was then generated equally by defense-related products and by commercial-related products.

FTCC employed a full-time staff in the areas of engineering, design, sales, manufacturing, and accounting and administration. Nearly all of the employees worked at the FTCC facilities in Cleveland, Ohio. As of the valuation date, FTCC had approximately 1,500 full-time employees.

FTCC sold products directly to large aerospace customers and acted as a subcontractor for defense-

related projects. FTCC products could be found on aircraft manufactured by Lockheed Martin, Boeing, Northrop/Grumman, and General Dynamics.

The Investigation and Related Issues

FTCC had a significant litigation matter pending as of the valuation date. In November 2005, the U.S. Attorney's Office for the Northern District of Ohio sent Federal Bureau of Investigation ("FBI") agents to the FTCC headquarters to seize the FTCC main computer server and other records subject to a subpoena.

According to FTCC management, the U.S. Attorney's Office investigation is described in the following paragraph:

> An investigation into the FTCC pricing and costing practices with respect to government contracts or subcontracts is presently being conducted by the United States Attorney's Office for the Northern District of Ohio (the "Investigation"). No charges or indictments have been filed. FTCC is cooperating fully with the government. Lead counsel to FTCC in this matter is Legal Firm not named. FTCC cannot express an opinion as to the outcome of the Investigation.

As a result of the Investigation, the Auditor #1 Company ("Audit 1"), the FTCC former auditing firm, delayed filing its fiscal 2005 audit report until January 21, 2007. Audit 1 stated that it was not provided "sufficient evidential matter relating to the scope, observations, and findings, if any, of its investigations into the uncertainty related to the Investigation."

As a result, Audit 1 did not express an audit opinion of the FTCC fiscal year 2005 financial statements.

In regard to the Investigation, Audit 1 stated that an unfavorable judgment with respect to the charges could have a materially adverse effect on the FTCC financial condition.

Audit 1 also stated the following in its 2005 report:

> This matter could divert the time and attention of management and could cause FTCC to incur substantial legal and other costs. Further, FTCC's reputation could be adversely affected. FTCC relies on its long-term customer relationships to maintain its operations. FTCC is devoting resources to maintain its current customer satisfaction in order to avoid the loss of confidence by the FTCC customers, which could reduce the FTCC economic growth and adversely impact its ability to maintain its current customers and potentially attract new ones. The existence of the government investigation has been published in the media. As a result, most of the FTCC major customers have inquired about the Investigation. To date (January 21, 2007), FTCC believes each inquiring customer has been satisfied that FTCC will continue to supply product, and FTCC has not suffered any loss of business and sales volume as the result of the investigation. FTCC's ability to obtain financing could also be adversely affected. Therefore, it is possible that the results of operations and liquidity in a particular period could be materially affected as a result of this matter.

FTCC replaced Audit 1 with Auditor #2 Company ("Audit 2") as its independent auditor. Audit 2 provided an audit opinion for the FTCC balance sheet as of December 31, 2006.

However, Audit 2 withheld its opinion regarding the results of operations and statement of cash flow for the year ended December 31, 2006.

It was understood that the Audit 2 reason for withholding its opinion was that it did not audit the 2005 balance sheet and amounts from the 2005 balance sheet enter materially into the determination of the results of operations and cash flow for the year ended December 31, 2006.

FTCC generated approximately 50 percent of its total revenue as a subcontractor to manufacturers of U.S. government aircraft. The Investigation was, therefore, a significant event that posed a considerable risk to any investor in the FTCC stock.

To the date of valuation, FTCC experienced little short-term repercussion from the Investigation. The primary quantifiable effects included approximately $3.5 million of legal fees related to the Investigation.

Long-term implications, such as damage to reputation and loss of customer opportunities, were not known as of the valuation date. However, FTCC management stated that it is not unreasonable to assume that FTCC could potentially lose all of its U.S. government contract work.

Other significant events triggered by the Investigation included the following:

1. The changing of the FTCC auditing firm
2. The withholding of audit opinions by both (the old and the new) auditors

Both of these factors would be viewed as significant risk factors by a hypothetical buyer of the FTCC stock.

Valuation Approaches and Methods to Consider

As previously mentioned, as of the valuation date, the FTCC product pricing and costing practices were the subject of a pending investigation by the U.S. Attorney's Office. And, as of the valuation date, no formal charges had been brought against FTCC relating to the Investigation.

However, the potentially damaging consequences of the Investigation likely would have a negative effect on the value of the FTCC common stock as of the valuation date.

Under a worst-case scenario, these negative consequences might include the U.S. government barring FTCC as a government contractor. This was an extreme scenario example, as it would result in a loss of approximately 50 percent of the FTCC business.

A hypothetical buyer of the FTCC common stock would certainly be concerned about the potential outcome of the Investigation. The buyer would also likely factor the potential outcome of the Investigation into the price he/she was willing to pay for the FTCC stock as of the valuation date.

According to a whitepaper titled "Penalizing Corporate Misconduct: Empirical Evidence," SEC enforcement actions, on average, result in a decrease in stock value.

Approximately 20 percent of the average decrease in stock value occurred on announcement of the event that triggered the SEC investigation. An additional 10 percent of the average decrease in stock value occurred upon announcement of the subsequent SEC enforcement action.[1]

The decrease in stock value can be primarily attributed to the following:

1. Adjustments to financial statements from corrective accounting action
2. The anticipated impairment of operations (e.g., damage to reputation, increase in cost of capital, damage of supplier, and/or customer relationships)
3. The expense of regulatory fines and penalties

While on many occasions the amount of monetary fines and penalties are greater for larger companies, smaller companies are generally more adversely affected.

Other research published in the *Journal of Political Economy* states that smaller contractors subject to defense procurement fraud are more adversely affected than the larger contractors.[2]

The authors of that publication state that while media coverage of fraud, indictments, and suspension of military procurement are associated with significant negative average abnormal stock returns (i.e., significant decreases in stock value), the market value of the top 100 defense contractors are not as severely impacted as the market value of the smaller companies.

The authors' research found that, on average, companies investigated for procurement fraud reported statistically significant decreased market value.

FTCC was not a top 100 government contractor. In addition, FTCC was relatively small compared to other companies in the industry. Therefore, one would expect a hypothetical buyer of the FTCC common stock to severely discount the price that the buyer would be willing to pay for the stock because of the Investigation.

Until this point in the analysis, the valuation of FTCC could be prepared as though the company was not subject to any extraordinary pending litigation or investigations.

Faced with the FTCC facts and circumstances, it would not be unusual for an analyst to incorporate the investment risk due to the Investigation into the FTCC valuation analysis by:

1. increasing an alpha factor related to the analysis present value discount rate,
2. incorporating investment risk through the application of a discount related to investment marketability,

3. estimating the cost to cure the negative event, and
4. developing a risk adjustment derived from market-based evidence of public companies that were subject to similar negative events.

In the case of FTCC, based on the quality and quantity of available information, an analysis of market-based evidence from public companies subject to similar negative events was performed. The decision to rely on a risk adjustment based on public company evidence was primarily due to the transparency of the data and simplicity of its application.

As of the valuation date, there was significant uncertainty involving the Investigation. This uncertainty made it impractical to quantify the cost to cure. And, the Investigation both:

1. increased the FTCC required rate of return—to compensate for increased risk—and, at the same time,
2. decreased the marketability of the FTCC stock.

Accordingly, the adjustments related to these factors are sometimes not as transparent as a risk adjustment derived from market-based evidence of guideline publicly traded company information.

The comparative guideline publicly traded company risk adjustment ("GPTCRA") analysis example provided herein is similar to published event study analyses.

A published event study can be defined as follows:

> An event study is a statistical method to assess the impact of an event on the value of a firm. For example, the announcement of a merger between two business entities can be analyzed to see whether investors believe the merger will create or destroy value. The basic idea is to find the abnormal return attributable to the event being studied by adjusting for the return that stems from the price fluctuation of the market as a whole.[3]

While similar in certain aspects to an event study, the GPTCRA analysis should not be referred to as an event study. The GPTCRA analysis is meant to provide a simplistic means for identifying significant events—events that bear similar fact patterns identified to the subject business fact patterns—and quantifying a market-based discount

(or risk adjustment) to apply to privately held business interests.

In an event study, there may be more sophisticated procedures used than employed in the GPTCRA analysis.

Guideline Publicly Traded Company Risk Adjustment Analysis, Part 1

In the instant case, the GPTCRA analysis was used to quantify the effect that both (1) the Investigation and (2) the withholding of audit opinions by both Audit 1 and Audit 2 had on the value of the FTCC common stock as of the valuation date.

Within the GPTCRA analysis, significant negative events that were announced by publicly traded companies (i.e., "guideline events") were identified. Next, the effect that each guideline event announcement had on the market price of the company's common stock was analyzed.

For purposes of this GPTCRA analysis, the guideline events included publicly traded company announcements of the following:

1. Fraud
2. Investigation
3. The delaying of financial statement filings
4. The change of auditors
5. Investigations by government agencies including the Department of Justice, the FBI, the Internal Revenue Service, the Securities and Exchange Commission, and/or the U.S. Attorney's Office

For each negative event announcement, the percentage change in the publicly traded company

stock price was quantified for the following time periods:

1. Three days before the announcement to three days after the announcement
2. One day before the announcement to one day after the announcement
3. The announcement date to one day after the announcement

The sources of information used to identify the companies and events used in the GPTCRAs analysis included the following:

1. The U.S. Department of Justice Corporate Fraud Task Force Significant Criminal Cases and Charging Documents[4]
2. The Bloomberg database
3. Westlaw articles
4. Securities and Exchange Commission filings

For this analysis, the Department of Justice website provided useful information. In particular, a link to "Significant Criminal Cases and Charging Documents" is a useful web page to find information related to guideline events. After compiling a list of guideline events, the next step is to review various publicly available documents in order to determine the appropriate date of each guideline event.

In compiling the guideline event list for this GPTCRA analysis, the analyst excluded noncomparable events such as events involving:

1. non-publicly-traded companies,
2. insider trading,
3. egregious fraudulent activity (e.g., Enron, etc.), and
4. the halting of trading activity in the subject company stock or a delisting of the subject company stock.

Guideline Publicly Traded Company Risk Adjustment Analysis, Part 2

The next part of the GPTCRA analysis requires the development of a normalization adjustment based on the percentage change in the publicly traded company stock price due to the guideline events. For this GPTCRA analysis example, a simplified adjustment was performed using the following four procedures.

The first procedure was to quantify the appropriate beta for each of the identified publicly traded companies. For this GPTCRA analysis, a one-year beta was estimated based on daily stock prices for the one-year period prior to the day of the identified guideline event.

The second procedure was to quantify the percentage change in the S&P 500 for each identified guideline event date for the following time periods:

1. Three days before the announcement to three days after the announcement
2. One day before the announcement to one day after the announcement
3. The announcement date to one day after the announcement

The third procedure was to multiply (1) the percentage change in the S&P 500 for each identified guideline event date by (2) the corresponding beta estimate for each of the identified publicly traded companies.

By applying the calculation provided in this procedure, the normalized return on each publicly traded security was estimated.

The fourth and final procedure was to estimate the percentage change in stock price—due to the identified guideline event—relative to the normalized return on the subject security.

For nearly all of the guideline events analyzed in the FTCC analysis, the price of the publicly traded company common stock decreased upon announcement of the identified guideline event. These guideline event data were used as a basis for adjusting the FTCC common stock value to account for the risk of the Investigation.

Conclusion of Guideline Publicly Traded Company Risk Adjustment

Exhibit 1 presents a list of 19 guideline events that were analyzed to estimate the FTCC risk adjustment. These data were used as a basis for estimating the risk adjustment attributable to the Investigation.

It is noteworthy that some of the companies included in this GPTCRA analysis eventually recovered from the announced significant negative event and experienced a subsequent increase in stock price. Other companies included in this GPTCRA analysis did not recover from the announced significant negative event and subsequently filed for bankruptcy protection.

Exhibit 1
Guideline Publicly Traded Company Risk Adjustment
Normalized Change in Stock Price Due to Identified Risk Event

Event Number	Company Name	Subject of the Risk Event Investigation	Inspection by Governmental Agency	Event Announcement Date	3 Days before the Announcement to 3 Days After	1 Day before the Announcement to 1 Day After	Announcement to 1 Day After
1	American Banknote Corp.	Company announced investigation related to the overstatement of revenue	SEC	1/19/99	-25.4%	-22.7%	-9.3%
2	American Banknote Holographics	Company announced investigation related to the overstatement of revenue	SEC	1/19/99	-73.5%	-71.0%	-0.5%
3	Cendant Corporation	Company announced it found premerger accounting abuses	SEC	4/15/98	-37.7%	-47.2%	-3.1%
4	Charter Communications	Merrill Lynch analyst expressed concerns over misleading accounting practices	SEC and Atty General	7/18/02	-2.9%	-8.1%	-10.2%
5	Comverse, Inc.	Company announced the formation of a special committee to review stock option grants	FBI and SEC	3/14/06	-17.7%	-15.8%	-16.0%
6	Comverse, Inc.	Company announced its 10-K will not be filed	FBI and SEC	4/17/06	-5.8%	-5.7%	-4.1%
7	Enterasys	Company announced the SEC is investigating its accounting practices	SEC, U.S. Atty Office, and FBI	2/1/02	-50.6%	-55.8%	-0.6%
8	L90	Company announced it is under an SEC investigation	SEC and FBI	2/4/02	-39.3%	-36.1%	-28.0%
9	McKesson	Company announced improper prior year filings	U.S. Atty Office and FBI	4/28/99	-45.0%	-48.3%	-46.8%
10	McKesson	Company announced that further revisions will be made to historical financial statements	U.S. Atty Office and FBI	5/25/99	-6.6%	-14.4%	-1.2%
11	Medi-Hut	Company announced its accounting firm resigned	SEC and FBI	1/28/02	-23.6%	-5.0%	0.9%
12	Medi-Hut	FBI raids company headquarters and the company “isn’t sure why”	SEC and FBI	11/22/02	-50.7%	-44.8%	-35.8%
13	NewCom	Company announced it had insufficient cash to repay its debt	SEC, FBI, IRS, U.S. Atty Office	9/3/99	-19.4%	-17.2%	-21.8%
14	NextCard, Inc.	Company announced a misstatement of earnings	SEC and U.S. Atty Office	10/31/01	-84.4%	-89.0%	-83.7%
15	Peregrine Systems	Company announced the filing of its 10-K will be delayed. The company replaces its auditors.	SEC and FBI	4/30/02	-64.3%	-56.3%	-7.7%
16	PurchasePro.com	Rumors circulate that the company financial statements are not accurate	SEC and DOJ	4/3/01	-45.7%	-36.5%	-27.1%
17	PurchasePro.com	Company announced it will not make first quarter estimates	SEC and DOJ	4/25/01	-61.7%	-60.3%	-41.4%
18	Rite Aid	Company announced it is under an SEC investigation	SEC	11/10/99	-13.4%	-20.7%	-32.8%
19	Westar	Company announced changes in the terms of its executive contracts	FBI and U.S. Atty Office	9/2402	-1.9%	0.2%	-1.6%
				High	-1.9%	0.2%	0.9%
				Low	-84.4%	-89.0%	-83.7%
				Mean	-35.3%	-34.5%	-19.5%
				Median	-37.7%	-36.1%	-10.2%
				Standard Deviation	25.0%	25.1%	21.8%
				Variance	6.2%	6.3%	4.8%

Sources: Company press releases, news articles, and SEC filings.

In either case, the primary purpose of this GPTCRA analysis was to estimate the appropriate risk adjustment attributable to the Investigation.

As presented on Exhibit 1, the 19 guideline events resulted in a normalized average and a normalized median decrease in the stock price of the selected companies of 35.3 percent and 37.7 percent, respectively, over the period of three days before the announcement to three days after the announcement.

Over the period of one day before the announcement to one day after the announcement, the 19 guideline events resulted in a normalized average and a normalized median decrease in the stock price of the selected companies of 34.5 percent and 36.1 percent.

From the announcement date to one day after the announcement date, the 19 guideline events resulted in an average and a median decrease in the stock price of the selected companies of 19.5 percent and 10.2 percent.

To select and conclude the GPTCRA discount, the following factors related to the FTCC common stock were considered:

1. As of the valuation date, FTCC management was unable to provide a reliable estimate as to the possible outcome of the Investigation.
2. FTCC was subject to four significant events related to the Investigation:
    a. The announcement of the Investigation in November 2005
    b. The withholding by Audit 1 of its audit opinion
    c. The replacement of Audit 1 with Audit 2
    d. The withholding by Audit 2 of its audit opinion on certain of the FTCC financial statements
3. Approximately 50 percent of the FTCC business was from government contracts.
4. In guideline event 11 and guideline event 12 on Exhibit 1, Medi-Hut announced the resignation of its accounting firm and the raid of its company headquarters by the FBI, respectively.
5. The announcement of the resignation of the Medi-Hut accounting firm resulted in a decrease in the Medi-Hut stock price of 23.6 percent (as measured three days before the event to three days after the event) and 5.0 percent (as measured one day before the event to one day after the event).
6. The announcement of the FBI raid resulted in a decrease in the Medi-Hut stock price of:
    a. 50.7 percent (as measured three days before the event to three days after the event),
    b. 44.8 percent (as measured one day before the event to one day after the event), and
    c. 35.8 percent (as measured from the announcement date to one day after the announcement date).
7. In guideline event 15 on Exhibit 1, Peregrine Systems announced a delay in the filing of its SEC Form 10-K and the replacement of its independent auditing firm.
8. The announcement of the filing delay and the replacement of its auditing firm resulted in a decrease in the Peregrine stock price of 64.3 percent (as measured three days before the event to three days after the event) and 56.3 percent (as measured one day before the event to one day after the event).

We concluded that a GPTCRA discount of 35 percent was appropriate for the FTCC common stock. This conclusion considered the following factors::

1. The normalized average decrease in the stock price of the selected guideline companies of 35.3 percent over the period of three days before the announcement to three days after the announcement
2. The normalized average decrease in the stock price of the selected guideline companies of 34.5 percent over the period of one day before the announcement to one day after the announcement
3. The 35.8 percent normalized decrease in the Medi-Hut stock price following the FBI raid on its company headquarters

Summary and Conclusion

In the FTCC valuation example, the subject company is a made up company with an identified significant negative event—a government investigation.

The investigation is an event that an investor would most likely consider by applying a pricing discount to the FTCC stock value due to the perceived risk and uncertainty of the event outcome.

Faced with the FTCC facts and circumstances, it would not be unusual for an analyst to incorporate into the FTCC valuation the investment risk due to the Investigation by:

1. increasing an alpha factor related to the analysis present value discount rate,

2. incorporating investment risk through the application of a discount related to investment marketability,
3. estimating the cost to cure the issue, and
4. developing a risk adjustment discount derived from market-based evidence of public companies that have been subject to similar negative events.

In the FTCC analysis, based on the quality and quantity of available information, an analysis of market-based evidence from public companies subject to similar negative events was performed. This guideline publicly traded company method was referred to as GPTCRA.

The GPTCRA methodology is simple to explain and easy to implement. Using a GPTCRA analysis, a market-based analysis was used to address the unique subject company issue. The results of the GPTCRA analysis provided support for a 35 percent discount application to the subject company stock.

The GPTCRA analysis and the related risk adjustment discount should not be double counted in the discount for lack of marketability analysis. In other words, the discount for the lack marketability is discretely addressed and is not combined with the GPTCRA analysis risk adjustment.

Likewise, under this perspective approach, additional pricing discounts related to the Investigation should not be double counted in a present value discount rate calculation.

Notes:

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2. Karpoff, Lee, Vendrzyk, "Defense Procurement Fraud, Penalties, and Contractor Influence," *Journal of Political Economy* (University of Chicago, 1999).
3. Ronald J. Gilson and Bernard S. Black, *The Law and Finance of Corporate Acquisitions*, 2nd ed. (1995), 194–195.
4. www.doj.com

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Flotation Cost Adjustments

Continued from page 32

Notes:

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2. Christoph Kaserer, Alfred Mettler, and Stefan Obernberger, "The Impact of the Sarbanes-Oxley Act on the Cost of Going Public," *German Academic Association of Business Research* 4, no. 2 (December 2011): 126.
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14. Minnesota Department of Revenue, 2016 Capitalization Rate Study, Revised (May 23, 2016), 10–11.
15. Oklahoma Tax Commission, Capitalization Rate Study (January 2016): 4.
16. Hsuan-Chi Chen and Jay R. Ritter, "The Seven Percent Solution," *The Journal of Finance* 55, no. 3 (June 2000)
17. Reilly and Schweihs, *Guide to Property Tax Valuation*, 266–267.
18. Entrepreneurial incentive is the fair rate of return on the time and money investment in the intangible asset development project to economically motivate the development process.

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Valuation Considerations for Premarital Agreements

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Premarital, or "antenuptial," agreements are often developed in a marital setting to establish financial terms regarding the division of assets upon divorce. Such agreements often arise in circumstances when a couple (1) brings children from a prior marriage, (2) has inheritance considerations, or (3) is dealing with a family-owned business. Required financial disclosure obligations of parties considering a premarital agreement vary by jurisdiction. The potentially complex nature of such obligations, and the complexity involved in developing such agreements, requires experienced legal counsel, and often the services of qualified valuation analysts, in order to produce a legally enforceable document.

Introduction

With the divorce rate in many parts of the country over 65 percent when individuals with multiple marriages are included, many people are re-examining the value of a premarital agreement in their personal and business planning. These agreements are also sometimes called "prenuptial" or "antenuptial" agreements. A premarital agreement is particularly helpful when there are children from a prior marriage, when inheritance is a mutual goal for both parties, or when ownership of a family business is involved.

The popular belief is that these agreements are not legally enforceable except when a spouse dies. Nothing could be further from the truth. In most states, these agreements, if properly drafted and negotiated, are legally enforceable in the context of a divorce, too.

In summary, generally there are four requirements under law for a premarital agreement to be valid:

1. It has to be in writing.
2. It has to be read and understood by each spouse.
3. Certain states require each spouse to have his or her own lawyer.
4. There has to be a "fair and reasonable" or a "full and fair" disclosure of each spouse's assets.

It is also a good idea to start the process of addressing a premarital agreement early in the planning stages. It does not need to take a long time to conclude.

Most couples will want to get these legal formalities finalized well before the more traditional aspects of the wedding and marriage begin. Also, the process of negotiating the premarital agreement is sometimes very helpful in allowing the individuals to focus on what is important in their relationship. After the agreement is signed, many couples feel the process was very constructive, and in fact, strengthened their relationship and helped increase confidence in their future spouse.

This discussion will focus primarily on the financial disclosure obligation required in premarital agreements. The disclosure obligation is not a cut-and-dried issue. Instead, the disclosure obligation has been the subject of litigation in numerous state courts.

Furthermore, state laws vary significantly regarding the disclosure obligation. For example, some states permit a spouse to make a voluntary waiver

of a full disclosure of assets. However, other states do not allow waivers.

Also, certain states require a "fair and reasonable" disclosure of assets while other states require a more stringent "full and fair" disclosure of assets. These seemingly slight but legally significant alterations in state statutes can make a world of difference when negotiating a premarital agreement between parties.

The Uniform Premarital Agreement Act

For simplicity and uniformity, the National Conference of Commissioners on Uniform State Laws promulgated the Uniform Premarital Agreement Act ("UPAA") in 1983. Currently, some form of the UPAA has been adopted by 26 states and the District of Columbia. The exact language of the disclosure obligation under the UPAA is provided under Section 6(a)(2) of the Act.

The relevant part of Section 6 provides as follows:

> Section 6. Enforcement.
>
> (a) A premarital agreement is not enforceable if the party against whom enforcement is sought proves that:
>
> (1) that party did not execute the agreement voluntarily; **or**
>
> (2) the agreement was unconscionable when it was executed **and**, before execution of the agreement, that party:
>
> (i) was not provided a *fair and reasonable disclosure* of the property or financial obligations of the other party;
>
> (ii) did not voluntarily and expressly waive, in writing, any right to disclosure of the property or financial obligations of the other party beyond the disclosure provided; and
>
> (iii) did not have, or reasonably could not have had, an adequate knowledge of the property or financial obligations of the other party. [Emphasis added]

Under the UPAA, a spouse must fairly and reasonably disclose his or her property holdings and financial obligations if the spouse wishes to be able to enforce an agreement against the other spouse, unless there is a voluntary and express waiver of the other spouse's disclosure rights. If there is not a fair and reasonable disclosure, however, actual knowledge by the other spouse at the time of the agreement would still permit enforcement on these grounds. Further, if disclosure is defective, the agreement must be unconscionable, as well, to preclude enforcement on these grounds.

While certain states have chosen to adopt some form of the UPAA, almost half of the states have chosen to *not* adopt the Act. Instead, those states have chosen to rely on common law or have crafted their own premarital agreement laws and disclosure obligations which the state believes fits the needs of its jurisdiction.

Further, even the states that have adopted the UPAA have modified the original Act to meet the needs of the particular state. Accordingly, uniformity among the states has not been achieved.

Disclosure Obligations by Jurisdictions

Exhibit 1 identifies the jurisdictions that have chosen to adopt the UPAA (26 states and the District of Columbia), and it also indicates whether the state has chosen to modify the disclosure obligations for premarital agreements under its particular UPAA statute.

For those jurisdictions that have chosen not to adopt the UPAA (24 states), the exhibit indicates the jurisdiction's disclosure obligation for premarital agreements as well as the applicable law setting forth the standard.

While a majority of jurisdictions require a "fair and reasonable" disclosure of each party's assets as contemplated by the UPAA, a number of jurisdictions, as indicated in the exhibit, have chosen to adopt the more stringent standard of "full and fair" disclosure in premarital agreements.

"Full and Fair" Disclosure

A number of states have chosen to adopt a "full and fair" disclosure standard as opposed to the "fair and reasonable" standard promulgated under the UPAA. While the concept of "full and fair" disclosure is interpreted differently by state courts, it generally requires that each party be given a clear idea of the nature, extent, and value of all the other party's assets.

The standard of "full and fair" disclosure will give the other party the ability to make an informed decision as to everything that may be relinquished or foregone as a result of entering into the premarital agreement.

Exhibit 1
Adoption of the Uniform Premarital Agreement Act ("UPAA")

States	Adoption of UPAA	Disclosure Requirements	Citation
Alabama	No	Alabama requires a person seeking enforcement to show that the entire transaction was fair, just and equitable **or** that the agreement was freely and voluntarily entered into with knowledge of the opposing side's interest in the estate and its approximate value.	*Barnhill v. Barnhill*, 386 So.2d 749 (Ala. App. 1980)
Alaska	No	Alaska generally follows the UPAA by requiring fair and reasonable disclosure of the property or financial obligations of the other party.	*Brooks v. Brooks*, 733 P.2d 1044 (Alas. 1987)
Arizona	Yes	Same as UPAA.	Arizona Revised Statutes § 25-202
Arkansas	Yes	Arkansas follows the UPAA, however, the state requires that if there was no financial disclosure, the party who did not get the disclosure must have *consulted with an attorney* before waiving the right to the disclosure.	Arkansas Code § 9-11-406
California	Yes	California requires that the party must have been provided "fair, reasonable and *full* disclosure of the property or financial obligations of the other party." This varies from the UPAA in that the UPAA requires only "fair and reasonable disclosure."	California Family Code § 1615
Colorado	No	In Colorado, a party has adequate financial disclosure under its statute if the party received a reasonably accurate description and good-faith estimate of value of the property, liabilities, and income of the other party **or** has adequate knowledge of the information.	Colorado Revised Statutes § 14-2-309
Connecticut	Yes	Connecticut does not allow for the waiver of the right to disclosure of the other party's financial information. Further, Connecticut requires that for a premarital agreement to be enforceable, the party must have been afforded a reasonable opportunity to consult with independent counsel.	Connecticut General Statutes § 46b-36g
Delaware	Yes	Same as UPAA.	13 Delaware Code § 326
District of Columbia	Yes	Same as UPAA.	District of Columbia Official Code § 46-506
Florida	Yes	Same as UPAA.	Florida Statutes § 61.079(7)

Exhibit 1 (cont.)
Adoption of the UPAA

States	Adoption of UPAA	Disclosure Requirements	Citation
Georgia	No	Georgia requires a full and fair disclosure of all material facts prior to a premarital agreement.	*Bilge v. Bilge*, 283 Ga. 65 (2008); *Scherer v. Scherer*, 249 Ga. 635 (1982)
Hawaii	Yes	Same as UPAA.	Hawaii Revised Statutes § 572D-6
Idaho	Yes	Same as UPAA.	Idaho Code § 32-925
Illinois	Yes	Same as UPAA.	750 Illinois Compiled Statutes § 10/7
Indiana	Yes	Indiana's enforcement statute only states that a premarital agreement is not enforceable if the agreement was unconscionable when the agreement was executed.	Indiana Code § 31-11-3-8
Iowa	Yes	Under the Iowa statute, unconscionability alone is adequate for a premarital agreement to be held unenforceable.	Iowa Code § 596.8
Kansas	Yes	Same as UPAA.	Kansas Statutes Annotated § 23-807
Kentucky	No	In Kentucky, a premarital agreement requires each party to fully disclose, in good faith, the amount of property each party holds.	*Daniels v. Banister*, 146 Ky. 48 (1911)
Louisiana	No	In Louisiana, very little case law exists delineating the disclosure obligations for premarital agreements. However, the case law that does exist provides that premarital agreements will be approved so long as they are not contrary to public policy.	*McAlpine v. McAlpine*, 679 So.2d 85 (La. 1996)
Maine	Yes	Same as UPAA.	19-A Maine Revised Statutes Annotated §608
Maryland	No	In Maryland, each party must have a full, frank, and truthful disclosure of the other party's assets, **or** adequate knowledge of a frank, full, and truthful disclosure of the other party's assets.	*Cannon v. Cannon*, 384 Md. 537 (2005); *Hartz v. Hartz*, 248 Md. 47 (1967)
Massachusetts	No	Massachusetts notes full and fair disclosure of each party's financial circumstances is a significant aspect of the premarital agreement.	*Dematteo v. Dematteo*, 436 Mass. 18, 762 N.E.2d 797 (2002)
Michigan	No	In Michigan, the premarital agreement must be fair, equitable and reasonable, and must be entered into voluntarily, and with full disclosure.	*Rinvelt v. Rinvelt*, 190 Mich. App. 372, 475 N.W.2d 478 (1991)

Exhibit 1 (cont.)
Adoption of the UPAA

States	Adoption of UPAA	Disclosure Requirements	Citation
Minnesota	No	For premarital agreements to be enforceable in Minnesota, there must be a full and fair disclosure of the earnings and property of each party.	Minn. Stat. Ann. § 519.11
Mississippi	No	In Mississippi, case law requires each party to a premarital agreement to disclose his or her financial assets.	*Smith v. Smith*, 656 So. 2d 1143 (Miss. 1995)
Missouri	No	In Missouri, a premarital agreement must be entered into in good faith with full disclosure.	*Ferry v. Ferry*, 586 S.W.2d 782 (Mo. Ct. App. 1979)
Montana	Yes	Same as UPAA.	Montana Code Annotated § 40-2-608
Nebraska	Yes	Same as UPAA.	Nebraska Revised Statutes § 42-1006
Nevada	Yes	Under the Nevada statute, unconscionability alone is adequate for a premarital agreement to be held unenforceable.	Nevada Revised Statutes § 123A.080
New Hampshire	No	In New Hampshire, fairness is the ultimate measure in enforcing a premarital agreement. Further, a premarital agreement is presumed valid unless it is proved that there was nondisclosure of a material fact.	*In re Estate of Hollett*, 150 N.H. 39, 834 A.2d 348 (2003); N.H. Rev. Stat. Ann. § 460:2-a
New Jersey	Yes	New Jersey requires a "full and fair disclosure of the earnings, property and financial obligations of the other party." Further, New Jersey requires that there be a statement of assets attached to the premarital agreement.	NJ Rev Stat §§ 37:2-33 & 37:2-38
New Mexico	Yes	Same as UPAA.	New Mexico Statutes § 40-3A-7
New York	No	The case law in New York provides limited guidance on the disclosure obligations of each party to a premarital agreement. However, certain cases have held that a full disclosure is not required.	*Hoffman v. Hoffman*, 474 N.Y.S.2d 621 (App. Div. 1984); *Panossian v. Panossian*, 569 N.Y.S.2d 182 (App. Div. 1991)
North Carolina	Yes	Same as UPAA.	North Carolina General Statutes Annotated § 52B-7
North Dakota	Yes	Same as UPAA.	North Dakota Statutes § 14-03.1-06
Ohio	No	Ohio case law requires a full disclosure or full knowledge, and understanding, of the value and extent of each prospective spouse's property.	*Gross v. Gross*, 11 Ohio St. 3d 99, 464 N.E.2d 500 (1984)

Exhibit 1 (cont.)
Adoption of the UPAA

States	Adoption of UPAA	Disclosure Requirements	Citation
Oklahoma	No	In enforcing a premarital agreement in Oklahoma, a court will consider whether the agreement afforded a fair and reasonable provision for a spouse and whether it provided full, fair and frank disclosure of the other spouse's worth.	*Starcevich v. Starcevich*, 2014 OK CIV APP 100
Oregon	Yes	Same as UPAA.	Oregon Revised Statutes § 108.725
Pennsylvania	No	In Pennsylvania, a premarital agreement will not be enforced unless there was full disclosure.	*Simeone v. Simeone*, 380 Pa. Super. 37 (1988), aff'd, 525 Pa. 392 (1990)
Rhode Island	Yes	Same as UPAA.	Rhode Island General Laws § 15-17-6
South Carolina	No	In South Carolina, a premarital agreement will be presumed fair if there was a full financial disclosure made by each spouse.	South Carolina Code of Laws § 20-3-630
South Dakota	Yes	Same as UPAA.	South Dakota Codified Laws § 25-2-21
Tennessee	No	Tennessee requires each prospective spouse to make a full disclosure of the nature, extent and value of property in the premarital agreement.	*Wilson v. Moore*, 929 S.W.2d 367 (Tenn. Ct. App. 1996)
Texas	Yes	Same as UPAA.	Texas Family Code § 4.006
Utah	Yes	The Utah statute contemplates that "fair and reasonable" disclosure may not be possible at times and thus adds the phrase "insofar as was possible" to the disclosure section of the statute.	Utah Code § 30-8-6
Vermont	No	For premarital agreements in Vermont, each party must provide a fair and reasonable disclosure of each party's financial status.	*Bassler v. Bassler*, 156 Vt. 353 (1991)
Virginia	Yes	Same as UPAA.	Virginia Code § 20-151
Washington	No	In Washington, a premarital agreement will be presumed fair if it provides a fair and reasonable disclosure of each party's assets.	*In re Marriage of Matson*, 107 Wash.2d 479 (1986).
West Virginia	No	West Virginia does not require the parties to a premarital agreement to execute a detailed, written disclosure of one another's assets.	*Pajak v. Pajak*, 182 W. Va. 28 (1989)
Wisconsin	No	In Wisconsin, a premarital agreement will be deemed fair if each prospective spouse made a fair and reasonable disclosure to the other of his or her financial status.	*Button v. Button*, 131 Wis.2d 84 (1986)

Exhibit 1 (cont.)
Adoption of the UPAA

States	Adoption of UPAA	Disclosure Requirements	Citation
Wyoming	No	In Wyoming, case law suggests that prospective spouses do not need to fully disclose to one another the nature, extent and value of one another's property. Instead, there simply must be a fair disclosure of each other's assets.	*Laird v. Laird*, 597 P.2d 463 (Wyo. 1979)

A "full and fair" disclosure will normally require each party to disclose his or her assets, income, liabilities, and the respective value of each. The premarital agreement should indicate whether the value reflects fair market value, fair value, book value, cash value or some other type of professional value estimation.

As a starting point to determine these values, each party to the agreement should consider making available to one another their federal income tax returns for the three years prior to the date of the premarital agreement.

Due to the complexity in determining the value of particular assets (specifically interests in closely held business organizations), a professional familiar with these types of valuations should be engaged. As we will discuss in the next section, a number of complexities are involved when calculating the value of an asset for premarital agreement purposes.

Determining Value

When determining the value of premarital assets, the most frequent standard used is "fair market value." This term is often confused with "fair value." Presented below is a brief overview of how each value is determined.

As we will discuss, the calculations are complex and may require a financial expert to determine the appropriate valuation in connection with the premarital agreement.

The term "fair market value" is frequently defined as "the price at which the property would change hands between a willing buyer and a willing seller when the former is not under any compulsion to buy and the latter is not under any compulsion to sell, both parties having reasonable knowledge of relevant facts."[1]

Internal Revenue Service Revenue Ruling 59-60, which has been commonly accepted as setting forth the criteria to consider in determining the "fair market value" of a closely held corporation for federal gift and estate tax purposes, lists the following factors as fundamental in a "fair market value" analysis:

> (a) The nature of the business and the history of the enterprise from its inception.
>
> (b) The economic outlook in general and the condition and outlook of the specific industry in particular.
>
> (c) The book value of the stock and the financial condition of the business.
>
> (d) The earning capacity of the company.
>
> (e) The dividend-paying capacity.
>
> (f) Whether or not the enterprise has goodwill or other intangible value.
>
> (g) Sales of the stock and the size of the block of stock to be valued.
>
> (h) The market price of stocks of corporations engaged in the same or a similar line of business having their stocks actively traded in a free and open market, either on an exchange or over-the-counter.

On the contrary, "fair value" does not have a generally accepted definition. The Financial Accounting Standards Board has defined "fair value" as the "price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date."[2]

Further, courts have determined that "fair value" considers only "the proportionate interest in a going concern."[3]

It is also important to note that when appraising the "fair market value" of a noncontrolling ownership interest in a closely held business, the application of certain discounts may be warranted to reflect the potential impact on value attributable to the lack of control and/or lack of marketability inherent in the subject ownership interest.

Thus, it may be appropriate for a valuation analyst to apply discounts when determining the "fair market value" of interests in a closely held business for "full and fair" disclosure purposes. The application of discounts is just another added complexity in determining the valuation of a party's assets required for a "full and fair" disclosure under a premarital agreement.

Retaining an Expert

Before entering into a premarital agreement, it is crucial that each party retain experts to assure compliance with the premarital agreement laws of the parties' jurisdiction. An estate planning or family law attorney is needed to determine the disclosure obligations and other necessary requirements needed for a premarital agreement in the particular jurisdiction.

As specified above, the requirements for premarital agreements vary significantly by state. Accordingly, it is important that each party is comfortable with their attorney's proficiency with the premarital agreement obligations in the particular jurisdiction. For example, the retained attorney should know whether the jurisdiction requires a "fair and reasonable" or a "full and fair" disclosure of assets, as this requirement is essential in determining each party's disclosure obligations under the premarital agreement and its validity.

Once the disclosure obligations of the particular jurisdiction have been identified, a valuation analyst should be retained by each party to determine the value of each party's assets for the premarital agreement. A number of factors may be considered by the analyst before arriving at the value of a particular asset.

For example, the analyst will determine whether to use fair market value, fair value, book value, cash value, or some other estimation in calculating the value of an asset for the agreement.

Particular assets require different standards of values to be used which in turn require different factors that must be analyzed by a valuation analyst. As noted above, interests in closely held businesses require the consideration of a whole host of components before an expert can arrive at a value.

To ensure enforcement of a premarital agreement, the support of a valuation analyst is essential to satisfy the "full and fair" or "fair and reasonable" disclosure obligation under the particular jurisdiction's premarital agreement law whenever assets or liabilities without clear cash values are involved.

Unfortunately, some individuals fail to begin the premarital agreement process sufficiently early, allowing inadequate time for thorough asset valuation. While delay of the wedding to allow such valuation is always preferable in these circumstances, the parties may desire to instead stipulate as to the values of certain assets or liabilities in the interests of scheduling.

In such cases, the parties should be advised of the risk that such stipulations—while contractually appearing to satisfy legal requirements—bring no guarantee that a court will not later set aside the premarital agreement on the grounds that the requisite disclosure was not made such that a party would know exactly what he or she was giving up in an objective financial sense.

Conclusion

In summary, the premarital agreement financial disclosure obligations of each jurisdiction vary greatly. These obligations are confusing, complex, and subject to interpretation.

Absent legal counsel that there will be a risk that the premarital agreement may not be enforceable, when unique assets are involved, it is essential to retain a qualified valuation analyst to satisfy the applicable financial disclosure standard in order to ensure the enforceability of the premarital agreement.

Notes:

1. United States v. Cartwright, 411 U.S. 546, 551 (1973); Treas. Reg. § 20.2031; Rev. Rul. 59-60, 1959-1 C.B. 237 (1959).
2.. ASC Topic 820, Fair Value Measurement.
3. See Brown v. Allied Corrugated Box Co., 154 Cal. Rptr. 170, 178 (Cal. App. 2d Dist. 1979); Pueblo Bancorporation v. Lindoe, Inc., 63 P.3d 353, 364 (Colo. 2003).

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On Our Web Site

Recent Articles and Presentations

Robert F. Reilly, firm managing director, authored an article that appeared in the April 2017 issue of the *ABI Journal*. The ABI Journal is a publication of the American Bankruptcy Institute. The title of Robert's article is "Methodologies for Arriving at DLOM."

Robert's article summarizes the factors to consider in measuring the discount for lack of marketability ("DLOM") associated with non-controlling securities of a closely held company. Robert discusses the two types of models used to measure the DLOM: empirical models and theoretical models.

Scott Miller, Portland office vice president, and Charlene Blalock, Portland office senior research analyst, authored an article that appeared in the Spring 2017 issue of the *American Journal of Family Law*. The title of their article was "Compensation Adjustments in Business Valuations for Family Law Disputes."

Scott and Charlene discuss factors to consider when determining whether compensation is reasonable. They examine the issue of "double dipping" (using the same compensation to determine spousal support and to determine property division). Scott and Charlene review several marital dissolution judicial decisions related to compensation. They summarize methods for adjusting for excess or insufficient compensation in a valuation. Finally, they provide sources of compensation data.

Robert Reilly authored an article that appeared in the January/February 2017, issue of *Construction Accounting and Taxation*. The title of Robert's article is "Construction Company Valuation—The Asset Accumulation Method."

Robert's article describes and illustrates one of the two common asset-based approach valuation methods: the asset accumulation method. Robert explores the procedures used in this method. He discusses the various categories of assets and liabilities that may be analyzed in this method (e.g., intangible personal property and contingent liabilities). He also provides an illustrative example of the method.

Robert Reilly authored a series of articles that appeared in *QuickRead*, a publication of the National Association of Certified Valuators and Analysts. The articles appeared between February 22, 2017, and March 29, 2017.

Robert's articles explore the asset-based approach, one of the three generally accepted valuation approaches. Many analysts immediately reject the asset-based approach valuation methods as being too difficult, too time consuming, too client disruptive, or simply (and without adequate explanation) not applicable to the subject closely held company. Robert discusses the theory behind the asset-based approach and situations where the approach is applicable. He discusses common misconceptions regarding the asset-based approach. Robert reviews the asset accumulation method (one method within the asset-based approach), and he provides an illustrative example of the asset accumulation method. Robert explores the adjusted net asset value method. And, finally, he provides an example of the adjusted net asset value method. Robert's articles are available at quickreadbuzz.com (which can be reached from links on our website).

These and many other articles and presentations may be found at www.willamette.com.

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Communiqué

In Print

Robert Reilly, firm managing director, authored an article that appeared in the February 2017 issue of the *ABI Journal*. The title of Robert's article was "Discount for Lack of Marketability for a Closely Held Debtor Company."

Robert Reilly also had an article that appeared in the April 2017 of the *ABI Journal*. The title of that article was "Methodologies for Arriving at DLOM."

Robert Reilly also authored a six-part article in the online publication for the National Association of Certified Valuators and Analysts ("NACVA") entitled quickreadbuzz.com. The article appeared for six successive weeks starting on February 23, 2017, and running through April 6, 2017. The title of Robert's article focused on the "Asset-Based Valuation Approach."

Robert Reilly also authored an article that appeared in the Spring 2017 issue of the *American Journal of Family Law*. The title of Robert's article was "DLOM in Valuation of Closely Held Company Securities in Family Law."

Scott Miller, Portland office vice president, and Charlene Blalock, Portland office senior research analyst, also authored an article in the Spring 2017 issue of the *American Journal of Family Law*. The title of their article was "Compensation Adjustments in Business Valuations for Family Law Disputes."

Robert Reilly also authored an article that appeared in the February/March 2017 issue of *Financial Valuation and Litigation Expert*. The title of Robert's article was "The Asset-Based Approach to Business Valuation."

Robert Reilly also authored an article that appeared in the March/April 2017 issue of *Construction Accounting and Taxation*. The title of that article was "Construction Company Valuation - The Adjusted Net Asset Value Method."

Robert Reilly also authored an article that appeared in the April 2017 issue of *The Practical Lawyer*. The title of that article was "What Lawyers Need to Know About the Asset-Based Business Valuation Approach—Part 1."

Robert Reilly also authored at article that appeared in the April 2017 issue of *Practical Tax Strategies*. The title of that article was "The Asset-Based Approach in Tax-Related Business Valuations: Part One."

In Person

Robert Reilly addressed the Business Valuation Association ("BVA") of Chicago on February 16, 2017. The topic of Robert's presentation was "The Identification and Measurement in the Cost Approach to Tangible Asset and Intangible Asset Valuation."

Robert Reilly addressed the annual business valuation conference of the American Society of Appraisers' Philadelphia chapter on May 4, 2017. The topic of Robert's presentation was "Financing Reporting and Intangible Asset Valuation."

Robert Reilly addressed the American Institute of Certified Public Accountants 2017 National Advanced Accounting and Auditing Technical Symposium in Las Vegas on June 13, 2017. The topic of Robert's presentation was "The Identification and Valuation of ASC 805 Intangible Assets."

John Elmore, Atlanta office vice president, delivered a continuing professional education webinar for BV Resources on April 11, 2017. The topic of that webinar was "Monte Carlo 101: Start Modeling in Excel."

Robert Reilly also delivered a continuing professional education webinar for BV Resources on April 27, 2017. The topic of that webinar was "Advanced Bankruptcy Valuation Issues."

Encomium

Robert Reilly received recognition at the American Bankruptcy Institute ("ABI") annual conference in Washington, D.C., in May. The award related to the ABI publication of the second edition of Robert's textbook titled *A Practical Guide to Business Valuation* (published by the ABI in 2017).

Insights Archives

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