



DIFFERENCES BETWEEN BUSINESS VALUATIONS, UNIT VALUATIONS,

This article identifies the differences between business, unit, and summation valuations that analysts tasked with valuation of a construction company should be familiar with.

AND SUMMATION VALUATIONS IN THE CONSTRUCTION INDUSTRY: PART II

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In part one of this two-part article series, we established that, for ad valorem taxation purposes, large construction companies are often assessed according to the unit valuation, while smaller companies are assessed according to the summation valuation. As a result, valuation analysts working within the construction industry to conduct property assessments should understand the subtle differences

between business enterprise valuations, unit principle valuations, and summation principle valuations.¹

As was discussed in part one, business valuations are the broadest analysis and include all of the subject construction company assets in place on the valuation date and the present value of growth opportunities. Unit valuations are slightly narrower in focus and value all the construction company's operating assets in place as of the valuation date. Summation valuations value only specified bundles of construction company property, typically tangible assets, in place as of the valuation date. Because each method focuses on a different bun-

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dle of ownership interests, the value conclusions reached using each method will also differ. In this part of the series, the analytical differences between the business valuation, unit valuation, and summation valuation will be identified and discussed.

Analytical differences

Difference number one. As mentioned previously, each of the three types 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 construction 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 construction 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 construction company's operating assets in place on the valuation date. The business value includes both operating assets and nonoperating assets. Moreover, the business value includes investor expectations of future assets.

Also, it is noteworthy that the unit value may include asset categories that are exempt from property taxation in the taxing jurisdiction, such as working capital assets, intangible assets, invest-

ments in subsidiaries and joint ventures, and the like.

The summation principle valuation encompasses only the specifically identified taxpayer 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
 - discount cash flow method
 - direct capitalization method;
2. market approach
 - guideline publicly traded company method
 - guideline merged and acquired company method; and
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; and
3. cost approach
 - original cost less depreciation method (OCLD)
 - replacement cost new less depreciation method (RCNLD)
 - reproduction cost new less depreciation method (RPCNLD).

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; and
3. cost approach
 - RCNLD method
 - RPCNLD method.



THERE ARE DIFFERENT GENERALLY ACCEPTED VALUATION APPROACHES, METHODS, AND PROCEDURES IN THE DIFFERENT TYPES OF VALUATIONS.

THE LEVEL OF INCOME SUBJECT TO CAPITALIZATION IS FUNDAMENTALLY DIFFERENT BETWEEN A BUSINESS VALUATION, A UNIT VALUATION, AND A SUMMATION VALUATION.

An explanation of each of the aforementioned approaches and methods is beyond the scope of this discussion. However, many of the analytical differences in the implementation procedures related to the previously listed methods will be discussed.

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 non-operating income. Furthermore, all 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, non-operating 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 (from the actual rents generated by a shopping mall) or hypothetical income (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 construction 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. direct replacement assets as assets in place retire;
3. expansionary capital expenditure assets;
4. potential mergers and acquisitions; and
5. potential new products, services, and business lines.

In a unit valuation, the income LTG rate typically relates to inflation growth only. In other words, there is typically no real growth included in the unit value LTG rate.

The unit value encompasses only the construction 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 0 percent. 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 within the analysis should be internally consistent 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. Moreover, the selected discount/capitalization rate should be consistent with the bundle of

ownership interests that is the valuation subject.

In a business valuation, typically the discount rate is based on the construction 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 construction 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 previously, the unit LTG rate may be less than the company LTG rate. Accordingly, the unit WACC components may be adjusted for their relative growth rates. The direct capitalization rate is typically the WACC discount rate minus the unit-specific LTG rate.

In a summation valuation, the yield capitalization rate is typically based on the band 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 interest 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 ratio structure for a property financing. Moreover, 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 vary 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



IN ALL TYPES OF BUSINESS OR PROPERTY VALUATIONS, THE LEVEL OF EXPECTED CAPITAL EXPENDITURES SHOULD BE RECONCILABLE TO THE INCOME EXPECTED LTG RATE.



THE SELECTED FINANCIAL METRICS WILL BE DIFFERENT IN A BUSINESS VALUATION, UNIT VALUATION, AND SUMMATION VALUATION.

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 taxpayer-specific pricing multiples should be based on the following:

1. relative growth rates;
2. relative profit margins;
3. relative returns on investment; and
4. 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 taxpayer-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 the 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 pricing multiples are applied to are different between 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 other sources). The common income metrics used in the business valuation market approach analysis include the following:

1. earnings before interest and taxes (EBIT);
2. earnings before interest, tax, depreciation, and amortization (EBITDA);
3. debt-free net income (EBIT minus taxes); and
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; and
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; and
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 construction company's:

1. total assets;
2. total invested capital; or
3. total equity.

The fundamental principle of the business valuation asset-based approach follows: the defined value of the total company assets minus the defined value of the total company liabilities equals

the defined value of the total company equity.

In the asset-based approach, total assets include financial assets, tangible assets, and intangible assets. 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. Furthermore, it is very common that at least one intangible asset is valued by reference to the income approach. That intangible asset (that is often — but not always — goodwill) may be valued using one of these income approach valuation methods: the capitalized excess earnings method or the multiperiod excess earnings method.

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 both 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 construction company assets and all of the construction company liabilities considered in the asset-based business valuation approach.

Difference number 10. 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 the company's 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 the construction 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 method, the RCNLD method and the RPCNLD method 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 11. The company asset RULs and the 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 asset RULs, asset depreciation lives, and asset depreciation rates that the construction company already uses for financial accounting purposes. The analyst typically assumes that the market participant buyer/new owner of the construction 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 cost approach depreciation rates and lives typically do 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



IN A BUSINESS VALUATION, THE ANALYST TYPICALLY USES THE ASSET RULs, ASSET DEPRECIATION LIVES, AND ASSET DEPRECIATION RATES THAT THE CONSTRUCTION COMPANY ALREADY USES FOR FINANCIAL ACCOUNTING PURPOSES.

THE CALCULATION OF THE RETURN ON ASSETS SHOULD INCLUDE A FAIR RATE OF RETURN ON ALL THE BUSINESS ENTITY'S ASSET CATEGORIES.

valuation analysis of functional obsolescence and economic obsolescence.

If the analyst uses the RCNLD method or the 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 the depreciation life and 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 12. 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 construction company business entity.

In the income approach, the obsolescence is accounted for implicitly in 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 both in 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's tangible assets and the taxpayer's intangible assets.

In the business valuation asset-based approach, obsolescence is often measured by the income shortfall method. This analysis compares the entity'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 the business entity's asset categories. These business entity asset categories include working capital (finan-

cial 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 taxpayer unit of operating assets level. That is, the obsolescence should relate to the taxpayer 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 in 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 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 13. 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 whether all the value indications are internally inconsistent. In particular, the analyst looks for — and attempts to explain — any aberrational value indications between the valuation approaches and methods.

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 the quality and quantity of the availability for each analysis and 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 construction company, the construction 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 taxpayer 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 weigh 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 14. In the VSC process, the analyst will specifically recognize the different bundles of ownership rights included in a business valuation, a 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 construction company. The analyst will typically assign the most weight to the valuation approaches and methods that directly conclude the value of the construction company 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:

1. all of the working capital, tangible assets, intangible assets, and other/investment assets in place;
2. the company's net asset investment attributes; and
3. the present value of future income from future tangible and intangible assets.

The subjects of a unit valuation are the operating assets of the construction company that are in place as of the valuation date. The bundle of operating assets includes all 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 bundles of assets may be subject to property tax in a particular taxing jurisdiction.



THE SUBJECTS OF THE BUSINESS VALUATION ARE THE DEBT AND EQUITY SECURITIES OF THE CONSTRUCTION COMPANY.

The analyst will give more weight to the valuation approaches and methods that directly value the intended bundle of operating assets. Moreover, the analyst will give less weight to the valuation approaches and methods that include extraneous ownership interests and investment attributes or exclude asset categories intended to be included in the subject bundle of assets.

The subjects of a summation valuation are specifically identified bundles 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. Furthermore, the analyst will 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, tax assessment authorities, construction company property owners, tax counsel, and analysts sometimes confuse business valuations, unit valuations, and summation valuations. This confusion often occurs in the construction industry where industrial or commercial properties are valued by reference to the unit principle of property tax valuation.

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. Moreover, analysts — and construction company owners and executives — should understand that there are analytical differences in the application of these three fundamentally different types of valuation analyses. The most important difference (that is both conceptual and practical) is that the three different types of valuations analyze and appraise three fundamentally different taxpayer bundles of ownership interest.

This discussion described some of the ways to reconcile these three different taxpayer bundles of ownership interests. With regard to construction industry property valuations, tax assessment authorities, construction company property owner-operators, tax counsel, and analysts should be aware of these differences between business enterprise valuations, unit principle valuations, and summation principle valuations. ■

NOTES

- ¹ Reilly, R.F., Differences between business valuations, unit valuations, and summation valuations: Part I, *Construction Accounting and Taxation* 27, no. 4 (2017): 20-31.