The Asset-Based Approach—The Adjusted Net Asset Value Method

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Valuation analysts ("analysts") typically claim to consider all three generally accepted business valuation approaches in the valuation of a closely held business, business ownership interest, or security. However, most analysts then immediately dismiss the asset-based approach in favor of the income approach and the market approach. These analysts usually provide little or no explanation for this analytical dismissal. There are two common asset-based approach business valuation methods: (1) the asset accumulation method and (2) the adjusted net asset value method. This discussion explains and illustrates the application of the adjusted net asset value method in the valuation of a typical closely held business or security.

INTRODUCTION

The first discussion of this three-part series of *Insights* discussions described the theory and application of the asset-based business valuation approach.

The second *Insights* discussion described the theory and application of one asset-based approach method: the asset accumulation ("AA") method.

This final discussion of this three-part series of *Insights* discussions describes the theory and application of another asset-based approach method: the adjusted net asset value ("ANAV") method.

When properly applied using consistent valuation variables, all asset-based business valuation approach methods should conclude approximately the same value for the subject business enterprise.

Additionally, when properly applied using consistent valuation variables, all asset-based business valuation approach methods may be used to conclude any of the following ownership interests:

1. Total business enterprise (i.e., total long-term debt and total owners' equity)
2. Total business assets (i.e., total subject entity tangible and intangible assets)
3. Total business owners' equity (e.g., all classes of equity)
4. A single class of owners' equity (e.g., total common stock)
5. A specific block of owners' equity (e.g., class B nonvoting stock)

Like the other asset-based approach methods, the ANAV method typically concludes a marketable, controlling ownership interest level of value. If the valuation subject is a different level of value (say a nonmarketable, noncontrolling ownership interest in the company common stock), then the analyst may need to identify and quantify appropriate valuation adjustments.

Such adjustments could include a discount for lack of marketability, a discount for lack of control, or a discount for contractual transferability (or other) restrictions.

For several reasons, the ANAV method is not the same analysis as the net book value ("NBV") method.

First, the NBV method is not a generally accepted business valuation method at all. The NBV "method" is a financial accounting calculation.

In the so-called NBV method, the analyst relies entirely on data from the company's financial statements, without the application of valuation analyses or analyst professional judgment. The analyst subtracts the company's recorded amount of liabilities (both current and noncurrent) from the company's recorded amount of assets (both current and noncurrent). This calculation provides what is often called the NBV of the subject company.

This NBV calculation describes the mathematical relationships between the assets and the liabilities recorded on the company's balance sheet. For a balance sheet prepared in accordance with GAAP, these accounts should typically be recorded on a historical cost basis. That historical cost basis is typically not indicative of a current value estimation for the company owners' equity.

Second, in contrast, the ANAV method may start with the NBV of the company assets and liabilities. Then, the analyst applies professional judgment and employs a series of valuation procedures. The result of these valuation procedures is a current value estimation of the company owners' equity.

This *Insights* discussion summarizes the ANAV method analytical procedures. This discussion explains the strengths and weaknesses of the ANAV as a law-related business valuation method. Finally, this discussion also presents several illustrative examples of the ANAV method.

One of these examples illustrates how the ANAV analysis accommodates a negative aggregate valuation adjustment. In other words, this illustrative example considers how the analyst handles negative goodwill in the application of the ANAV method.

ANAV METHODOLOGY

First, the analyst typically starts with the subject company's GAAP-based balance sheet. The analyst will use the balance sheet dated closest to the analysis valuation date. Preferably, the analyst will use the company's balance sheet that was prepared just before the analysis valuation date.

Second, the analyst identifies and separates (for further analysis) any nonoperating or excess assets reported on the balance sheet. Such assets may include vacant land or other assets held for investment purposes. Such assets may also include those assets that are not necessary for the business but that are enjoyed primarily by the business owners.

This asset category may include a private aircraft or a vacation home owned by the company. And, nonoperating assets sometimes include the tangible assets of company discontinued operations that are being held for disposal.

In any event, these excess or nonoperating assets are analyzed separately from the ANAV valuation of the going-concern business.

Third, the analyst lists all of the reported account balances for the following categories of business operating assets:

1. Working capital assets (including current assets less current liabilities)

2. Tangible assets (including land, buildings, and equipment)

3. Intangible assets (including any recorded identifiable intangible assets)

4. Other assets (such as deferred income taxes and unconsolidated investments)

The sum of these recorded asset balances represents the amount of the company's total net operating assets. The total operating assets are typically analyzed net of the current liabilities accounts. However, for this purpose, the current liability component of any long-term debt is excluded from this total.

In other words, the total net operating assets should equal the total long-term debt (including the current portion of that debt) plus the total owners' equity recorded on the company balance sheet.

Fourth, the analyst begins the process of performing an aggregate revaluation of all of the company's total net assets. The most common valuation method that is used to perform this single, collective revaluation of the net operating assets is the capitalized excess earnings method ("CEEM"). The result of the CEEM analysis is often called intangible value in the nature of goodwill.

This CEEM goodwill value represents the total value increment (or value decrement) compared to the company's recorded cost-based net operating assets.

That is, this CEEM goodwill calculation may not represent the same goodwill calculation that could be indicated by (1) the AA method of business valuation or (2) the GAAP-based acquisition accounting method residual goodwill calculation.

For both the AA method and the acquisition price allocation analysis, goodwill represents an individual intangible asset. That goodwill intangible asset is quantified after:

1. all of the company tangible assets have been revalued and

2. all of the company identifiable intangible assets have been revalued.

In the CEEM analysis, the goodwill calculation typically includes all of the following:

1. The total revaluation (above the cost-based accounting balance) of the company's recorded tangible assets

2. The total revaluation (above the cost-based accounting balance) of all of the company's recorded intangible assets

3. The total valuation of all of the company's identifiable but unrecorded intangible assets

4. The valuation of any remaining company business value in excess of the value increment associated with the company's recorded tangible assets, recorded intangible assets, and unrecorded intangible assets

Therefore, in the CEEM analysis, the value conclusion represents more than the value of the company's residual goodwill amount. The CEEM value conclusion represents an aggregate revaluation of all of the company's recorded balance sheet accounts.

For this reason, the CEEM conclusion is often referred to as intangible value in the nature of goodwill. That name is intended to distinguish the CEEM goodwill adjustment from the residual amount of goodwill that is concluded (1) in an AA method analysis or (2) in a GAAP accounting purchase price allocation.

The CEEM analysis involves multiplying a fair rate of return by the company's net operating assets balance. The mathematical product of this multiplication is called the company's required earnings. The analyst compares the company's required earnings to the company's actual earnings.

If the actual earnings exceed the required earnings, then the company is generating excess earnings. The excess earnings are typically capitalized as an annuity in perpetuity. The capitalized excess earnings represents the intangible value in the nature of goodwill for the subject company.

Fifth, the analyst adds the net operating assets balance to the goodwill balance calculated from the CEEM analysis. This summation represents the current value indication for all of the company's net assets (i.e., total assets minus current liabilities).

The analyst can also subtract the company's long-term debt from the calculated net asset value indication. The remainder of that subtraction process indicates the current value of the company owners' equity.

Sixth, as a final procedure, the analyst will add the value of any excess or nonoperating assets to the value of the net operating assets—in order to conclude a total business value.

STRENGTHS OF THE ANAV METHOD

The first advantage of the ANAV method is that it is relatively quick and easy to perform. For the most part, the analyst only needs the company's historical financial statements in order to perform the ANAV analysis.

In other words, the ANAV is based on the same company financial data that the analyst would collect in order to perform either a market approach or an income approach business valuation.

In contrast, the AA method analysis requires valuations of each category of the company's tangible assets and intangible assets. In contrast to the AA method, the ANAV method does not require the time or the cost of either:

1. the analyst performing numerous tangible asset and intangible asset valuations or

2. a third-party appraisal specialist performing numerous tangible asset and intangible asset valuations.

The second advantage of the ANAV method is that it is relatively easy for the analyst to explain and relatively easy for counsel and other parties relying on the business valuation to understand. The application of the AA method often involves the use of numerous valuation approaches and methods. And, the AA method involves valuations of interrelated assets.

Considerations related to contributory asset charges and profit split analyses are often difficult for counsel and other parties relying on the valuation to understand and follow.

A third advantage of the ANAV method is that it is intuitively obvious. The analysis starts with the company balance sheet. If the company earns an amount of income greater than a fair return on its balance sheet assets, then the business value is proportionately greater than its NBV. If the company earns an amount of income less than a fair return on its balance sheet assets, then the business value is proportionately less than its NBV.

Fourth, because of the relatively limited data requirements, the analyst does not have to disrupt the company business operations to the same extent as the AA method. That is, the breadth of management interviews and company visits is often less obtrusive with the ANAV method (as compared to the AA method). Therefore, it is easier for the analyst to perform the ANAV method (than the AA method) in a litigation valuation environment.

Fifth, the ANAV method can be used effectively and efficiently to identify whether or not the company is earning a fair return on investment for the company owners. This business valuation method also quickly identifies whether the GAAP balance sheet overvalues or undervalues the company's net assets (in the aggregate).

In summary, the ANAV method allows the analyst to perform an asset-based approach analysis without the cost and time requirements of the AA method.

Such an analysis is usually sufficient to allow the analyst to reconcile the ANAV value indication with the market approach and the income approach value indications in order to synthesize an overall business value conclusion.

WEAKNESSES OF THE ANAV METHOD

First, the ANAV method can be used to conclude the following:

1. Subject company total asset value
2. Subject company total business enterprise (long-term debt plus equity) value
3. Subject company total equity value

The ANAV method cannot be used to estimate the value of any particular asset or bundle of assets. It does not effectively distinguish between tangible asset value and intangible asset value. And, it cannot identify the value of assets that are pledged as debt collateral—compared to the value of assets that are available to pledge as debt collateral.

Second, the ANAV method may be deceptively simple. Analysts, legal counsel, judicial finders of fact, and any other party relying on the valuation need to appreciate the importance of each valuation variable in the methodology.

There are different versions of the ANAV method. Some versions involve no revaluation of the company assets. Other versions allow for limited revaluation of certain company assets (such as real estate).

Issues such as the selection of the fair rate of return on assets, the consistency of the level of company income and the rate of return measurement, and the selection of the direct capitalization rate are more complex than they may seem on the surface.

Third, the ANAV method will conclude a business value for the company. However, and unlike the AA method, the ANAV method does not identify the source of the business value.

That is, the ANAV method does not determine if any company excess earnings is due to efficient plant and equipment use, strong customer relationships, valuable intellectual property assets, or any other reason.

Fourth, the ANAV method typically doesn't identify asset spin-off opportunities, undervalued asset refinancing opportunities, or intellectual property license opportunities. In other words, this method indicates a reasonable business value conclusion. However, this method is limited with regard to telling the company management how to maximize (or even increase) the value of the company.

Fifth, the ANAV method has application limitations with regard to comparing business values under alternative standard of value scenarios and alternative premise of value scenarios.

> "[T]he ANAV method can be used effectively and efficiently to identify whether or not the company is earning a fair return on investment for the company owners."

As a relatively simple methodology, the ANAV method typically concludes a market-based standard of value and a going-concern premise of value. It is difficult to adjust the valuation variables to conclude alternative standards of value or alternative premises of value.

In summary, as with any valuation method, the analyst has to be aware of the importance of each individual valuation variable in the ANAV method. And, the analyst has to appreciate that the ANAV method produces a reasonable indication of the company current business value.

However, this method has somewhat limited application when it comes to analyzing issues related to alternative tax structures, financing structures, transaction structures, and so forth.

Specific Issues in the ANAV Method

There are a handful of technical issues that the analyst should focus on in the application of the ANAV method. Most of these issues relate to the importance of internal consistency in the selection of the valuation variables.

Some of these issues relate to the analyst's professional judgment with regard to the direction (increasing or decreasing) and duration (limited or perpetual) of any company excess earnings.

The first issue that the analyst should consider is that (as with any business valuation method) there are alternative versions of the ANAV method. In the simplest application of the method, none of the company assets or liabilities are restated from their balance sheet account balances.

That is, each asset and liability category is stated at its historical cost as presented on a recent GAAP balance sheet. An example of this ANAV version will be presented later in this discussion.

Alternatively, sometimes the analyst has available current values for some (but only some) of the company's recorded assets. For example, the company management may present the analyst with contemporaneous appraisals of the company's real estate or other tangible assets.

Of course, the analyst should understand the purpose and objective of such appraisals before incorporating them into the ANAV analysis. However, the analyst can use the ANAV method based on current appraisals of some of the company assets—but not others.

If the analyst is careful in selecting valuation variables, any value appreciation that is accounted for in the tangible asset appraisals should reduce the value concluded in the CEEM analysis.

That is, part of the company value may be transferred from the CEEM intangible goodwill value to the appraised tangible asset value. Other than for rounding errors, the total business value should remain the same. An example of this ANAV method version is also presented later in this discussion.

The analyst has to decide what level of company income should be included in the CEEM analysis. Some of the common alternative levels of company income include EBIT, EBITDA, net operating income (EBIT after taxes), and net cash flow. Any of these alternative measures of the company income may be used in the CEEM analysis.

However, the analyst has to select both (1) a rate of return and (2) a capitalization rate that are consistent with the level of income selected to measure the company required earnings level and the company actual earnings level.

In other words, all income measures and all rate measures should be calculated based on the same level of income with regard to income taxes, interest expense, depreciation expenses, and so forth.

Some analysts apply the CEEM calculation by assigning a single fair rate of return to all company asset categories. In this version of the CEEM, the single fair rate of return is often the company weighted average cost of capital ("WACC").

In this version, each asset category is assigned a portion of the total company earnings based on the asset category balance multiplied by the WACC. This version is a common application of the CEEM, based on a simplifying assumption that all assets have the same degree of investment risk with regard to the company.

In this CEEM application, the direct capitalization rate used to capitalize any excess earnings is also based on the company WACC.

All analysts have to make a decision with regard to the expected future growth rate (g) related to any excess earnings (or to any negative earnings—or income shortfall). This decision is quantified in the direct capitalization rate used to capitalize any excess (or deficiency in) earnings.

If the analyst doesn't expect the excess earnings to increase (or decrease) over time, then the capitalization rate will equal the WACC.

If the analyst expects the excess earnings to increase at the rate of positive g percent over time, then the capitalization rate will typically be:

$$(WACC - g)\%.$$

If the analyst expects the excess earnings to decrease at the rate of negative g percent over time, then the capitalization rate will typically be: (WACC + g)%.

The most important factor that analysts should consider in the ANAV method is consistency. That is, when the analyst uses the CEEM to measure a company's intangible value in the nature of goodwill, all of the valuation variables within the analysis should be internally consistent.

How to Handle Negative Goodwill

Based on the application of the CEEM, it is possible for the analyst to calculate a negative figure for the company intangible value in the nature of goodwill. This result will occur any time the company's required earnings are greater than the company's expected actual earnings.

In other words, when the company is generating deficit earnings (instead of excess earnings), the capitalization of the earnings deficiency will indicate negative goodwill.

Negative goodwill would not be reported on a company's balance sheet prepared in compliance with GAAP. And, negative goodwill should not be reported on the company's valuation-based balance sheet prepared as part of an ANAV method analysis.

The CEEM-derived negative goodwill should be eliminated by reducing the concluded value of the company's previously valued tangible assets and identifiable intangible assets.

The CEEM result of negative goodwill is an indication that the company is experiencing economic obsolescence. In fact, the mathematical result of negative goodwill is one common procedure for measuring economic obsolescence.

Economic obsolescence occurs when an operating company does not earn a fair rate of return on the indicated value of its tangible assets and intangible assets. The existence (and measurement) of economic obsolescence indicates that all of the subject assets that were valued by reference to a cost approach method should be decreased in value (by the amount of the economic obsolescence).

Typically, the analyst will decrease the value of all of the cost-approach-measured assets (both tangible and intangible) until the amount of economic obsolescence is reduced to zero.

For example, let's assume that the company CEEM analysis indicates a $1 million negative good-will conclusion. This conclusion indicates the existence of economic obsolescence at the company.

Let's assume that the analyst previously valued other company tangible and intangible assets using the cost approach and the replacement cost new less depreciation ("RCNLD") method. The sum of all of the other cost-approach-derived asset values was $10 million.

In this case, the analyst would reduce the cost-approach-derived asset values by 10 percent ($1 million economic obsolescence divided by $10 million total RCNLD).

The resulting cost approach value conclusions—after economic obsolescence—would be $9 million. At a $9 million total tangible and intangible asset value conclusion, the CEEM analysis should indicate $0 of goodwill—and $0 of remaining economic obsolescence.

In many situations, in the recognition of economic obsolescence, the analyst will only decrease asset values that were concluded using a cost approach valuation method. This is because assets that were valued by reference to either income-approach-based business valuation methods or market-approach-based business valuation methods have already recognized the owner/operator's economic obsolescence in the value conclusions.

For example, the income projections and the discount and capitalization rates used in the income approach valuations should be implicitly influenced by the existence of economic obsolescence.

Likewise, the market-derived sales and the market-derived lease and royalty rates may be implicitly influenced by the existence of economic obsolescence. These statements are true for the valuations of both tangible assets and intangible assets.

Economic obsolescence may still exist for assets valued using an income-based approach and/or a market-based approach, if not applied in the context of a business valuation. For example, the income approach methods and market approach methods relied on in a real property appraisal may not accurately account for the economic obsolescence that exists for the subject assets in the context of a business valuation.

However, the illustrative examples in the article will reflect the common scenario where the company income-approach-valued assets and market-approach-valued assets do not need to be explicitly adjusted for the existence of economic obsolescence. In contrast, if negative goodwill exists, the company cost-approach-valued assets do need to be explicitly adjusted for the existence of economic obsolescence.

ILLUSTRATIVE EXAMPLE—NO INDIVIDUAL ASSET REVALUATION

Let's assume that an analyst is retained to estimate the value of 100 percent of the owners' equity of Red Client Company ("Red"), as of December 31, 2016. Let's assume that the assignment is to conclude fair market value of the Red equity on a marketable, controlling ownership interest basis.

Let's assume that the analyst decides to apply the asset-based business valuation approach and

Assets	
Current Assets:	
Cash	2,000
Accounts Receivable	3,000
Inventory	5,000
Total Current Assets	10,000
Property, Plant, and Equipment:	
Land	10,000
Buildings	20,000
Equipment	30,000
Less: Accumulated Depreciation	(20,000)
Property, Plant, and Equipment, Net	40,000
Total Assets	50,000
Liabilities and Owners' Equity	
Current Liabilities:	
Accounts Payable	2,000
Wages Payable	2,000
Taxes Payable	2,000
Total Current Liabilities	6,000
Long-Term Liabilities:	
Notes Payable	14,000
Mortgages Payable	10,000
Total Long-Term Liabilities	24,000
Owners' Equity	
Total Owners' Equity	20,000
Total Liabilities and Owners' Equity	50,000

the ANAV method. The analyst is going to revalue the equity in the aggregate using the CEEM to conclude the total intangible value in the nature of goodwill.

Let's assume that Exhibit 1 presents the historical cost-based balance sheet for Red as of the December 31, 2016, valuation date. All financial data are presented in $000s.

Now, let's assume that the analyst has worked with the company management, performed a reasonable due diligence analysis, and concluded that the next period normalized EBIT will be $9 million.

For purposes of this analysis, the analyst concluded that EBIT was the appropriate measure of operating income to use to apply the CEEM analysis.

The analyst has concluded that the appropriate fair rate of return on all of the tangible and intangible assets is 15 percent. The analyst selected this rate of return based on the Red WACC.

And, the analyst concluded a 0 percent expected long-term growth rate in excess earnings. Therefore, the analyst concluded a 15 percent direct capitalization rate.

Exhibit 2 presents the analyst's CEEM analysis. In this application of the ANAV method, the analyst will not revalue any of the Red assets—either the recorded tangible assets or the unrecorded intangible assets. That is, the analyst will apply the CEEM analysis based on the Red GAAP basis balance sheet accounts.

Finally, the analyst prepared the ANAV method valuation-based balance sheet as of the December 31, 2016, valuation date. The analyst adjusted the GAAP-based balance sheet for the result of the CEEM aggregate asset revaluation analysis. This ANAV balance sheet is presented in Exhibit 3.

Based on the simplified fact set in this illustrative example, the analyst performed the asset-based approach and the ANAV method to value the Red total equity. The analyst applied the CEEM analysis to conclude the aggregate asset revaluation amount to include in the ANAV method valuation. The analyst concluded $16,000 as the total asset revaluation.

As presented in Exhibit 3, the analyst concluded $36,000 as the fair market value of 100 percent of the Red owners' equity as of December 31, 2016.

ILLUSTRATIVE EXAMPLE—TANGIBLE ASSET VALUATION

Let's assume that the analyst is again retained to estimate the value of 100 percent of the owners'

equity of the subject company, White Client Company ("White"), as of December 31, 2016.

Again, the valuation assignment calls for a fair market value standard of value and a marketable, controlling ownership interest level of value. White has the same GAAP-based balance sheet as did the hypothetical Red Client Company. Again, all financial data are presented in $000s.

Again, the analyst decides to apply the asset-based approach and the ANAV method to value the equity. The analyst decides to use the CEEM analysis to measure the appropriate total valuation adjustment to the GAAP-based balance sheet.

The analyst performs a due diligence analysis of the company and estimates that White will generate $9,000 of EBIT next year.

In this valuation, the analyst decides to use EBIT as the appropriate income metric to measure any excess earnings. And, the analyst performs a WACC analysis and concludes that 15 percent is the appropriate rate of return on the White assets.

Finally, the analyst again concludes a zero expected long-term growth rate in any company excess earnings. Therefore, the analyst concluded a 15 percent direct capitalization rate for use in the CEEM analysis.

In the case of White, the analyst is able to revalue certain of the assets that are already recorded on the balance sheet. Let's assume that the analyst perform a market approach analysis to value the inventory.

The analyst estimated the expected selling price of the inventory less the corresponding expected selling expense. The analyst concluded a $6,000 fair market value for the inventory.

White management provided the analyst with contemporaneous appraisals of the company property, plant, and equipment. Based on a market approach (and a sales comparison method analysis),

Exhibit 2
Red Client Company
Adjusted Net Asset Value Method Analysis
Intangible Value in the Nature of Goodwill
As of December 31, 2016
in $000s

Red Account Balances:		Fair Rate of Return	Required Earnings
Working Capital Assets [a]	4,000	15%	600
Property, Plant, and Equipment	40,000	15%	6,000
Total Assets	44,000		6,600
Excess Earnings Analysis:			
Red Next Period Normalized Earnings	9,000		
– Red Required Earnings	6,600		
= Red Excess Earnings	2,400		
Capitalized Excess Earnings Analysis:			
Red Excess Earnings	2,400		
÷ Direct Capitalization Rate	15%		
= Capitalized Excess Earnings	16,000		
Intangible Value in the Nature of Goodwill	16,000		

[a] Working capital assets = current assets minus current liabilities

the fair market value of the White land was $12,000. Based on a cost approach (and an RCNLD method analysis), the fair market value of the White building was $14,000 and the fair market value of the White equipment was $24,000.

All of these assets (including the inventory) were appraised based on a value in continued use premise of value.

Since the analyst had individually revalued account balances in this fact set example, the analyst could have applied different required rates of return to each asset category.

For example, the analyst could have applied a lower (than 15 percent) rate of return to the inventory and tangible assets. Then the analyst would have applied a higher (than 15 percent) capitalization rate as part of the goodwill-related valuation. Using such a procedure, the analyst would have to ensure that the White weighted average return on assets ("WARA") equals the White WACC in the CEEM analysis.

To maintain the simplicity of this illustrative example, the analyst consistently used the White 15 percent WACC as the required rate of return on all of the asset categories in this CEEM analysis.

Assets
  Current Assets:
    Cash 2,000
    Accounts Receivable 3,000
    Inventory 5,000
    Total Current Assets 10,000

  Property, Plant, and Equipment:
    Land 10,000
    Buildings 20,000
    Equipment 30,000
    Less: Accumulated Depreciation ..... (20,000)
    Property, Plant, and Equipment, Net ... 40,000

  Intangible Assets:
    Intangible Value in the Nature of Goodwill ... 16,000

Total Assets 66,000

Liabilities and Owners' Equity
  Current Liabilities:
    Accounts Payable 2,000
    Wages Payable 2,000
    Taxes Payable 2,000
    Total Current Liabilities 6,000

  Long-Term Liabilities:
    Notes Payable 14,000
    Mortgages Payable 10,000
    Total Long-Term Liabilities 24,000

  Owners' Equity
    Total Owners' Equity 36,000

Total Liabilities and Owners' Equity 66,000

Since the analyst received or performed current valuations of certain of the asset accounts, the analyst used these valuations in the ANAV method analysis. Let's assume that the analyst did not have valuations for any of the intangible assets.

Based on a White historical cost balance sheet that was equal to the Red historical cost balance sheet and based on the current values for the White inventory and tangible assets, the analyst performed the CEEM analysis summarized in Exhibit 4.

Finally, the analyst prepared the ANAV method valuation-based balance sheet as of the December 31, 2016, valuation date.

The analyst adjusted the GAAP-based balance sheet for both:

1. the results of the separately valued individual asset accounts and

2. the conclusions of the CEEM analysis.

The White ANAV balance sheet is presented in Exhibit 5. All financial data are presented in $000s.

Based on the simplified fact set in this illustrative example, the analyst performed the asset-based approach and the ANAV method to value the White total equity.

The analyst:

1. used current values for several White asset categories and

2. applied the CEEM analysis to collectively revalue all other White tangible assets and intangible assets.

Based on this CEEM analysis, the analyst concluded a $5,000 conclusion for the aggregate intangible value in the nature of goodwill.

And, based on the ANAV method analysis, the analyst concluded a $36,000 value for 100 percent of the White owners' equity as of December 31, 2016.

ILLUSTRATIVE EXAMPLE—NEGATIVE GOODWILL

Let's assume that the analyst is again retained to estimate the value of 100 percent of the owners' equity of a company as of December 31, 2016. In this final example, the hypothetical company is called Blue Client Company ("Blue").

Again, the assignment calls for a fair market value standard of value and a marketable, controlling ownership interest level of value.

Let's assume that the Blue December 31, 2016, historical cost basis balance sheet is again the same as the Red December 31, 2016, historical cost basis balance sheet. All financial data are presented in $000s.

The analyst again decides to apply the asset-based business valuation approach and the ANAV valuation method to conclude the Blue total equity value.

White Account Balances:		Fair Rate of Return	Required Earnings
Working Capital Assets [a]	5,000	15%	750
Property, Plant, and Equipment [b]	50,000	15%	7,500
Total Assets	55,000		8,250
Excess Earnings Analysis:			
White Next Period Normalized Earnings	9,000		
– White Required Earnings	8,250		
= White Excess Earnings	750		
Capitalized Excess Earnings Analysis:			
White Excess Earnings	750		
÷ Direct Capitalization Rate	15%		
= Capitalized Excess Earnings	5,000		
Intangible Value in the Nature of Goodwill	5,000		

[a] Working capital includes $11 million of current assets less $6 million of current liabilities.
[b] Property, plant, and equipment includes $12 million of land, $14 million of buildings, and $24 million of equipment.

The analyst performs the same due diligence analysis of the company and concludes the same valuation variables used in the prior two examples with regard to WACC, expected long-term growth rate in excess earnings, and direct capitalization rate.

As with the White analysis, the analyst has the opportunity to discretely appraise certain of the Blue asset categories. Using the same market approach analysis, the analyst values the inventory at $6,000. And, the company management provides the analyst with current fair market value appraisals of the property, plant, and equipment.

The Blue land is valued at $12,000 using the market approach, and the Blue building is valued at $14,000 using the cost approach.

The only difference between the Blue fact set and the White fact set is that, this time, management provides the analyst with a $30,000 appraisal for the Blue equipment. That $30,000 fair market value conclusion is based on a cost approach and an RCNLD method analysis.

The analyst used the inventory and the tangible asset valuations in the ANAV method analysis. The analyst did not have access to any intangible asset valuations with regard to Blue.

Based on the Blue historical cost balance sheet and the current valuations for the Blue inventory and tangible assets, the analyst performed the CEEM analysis summarized in Exhibit 6:

Since the "excess earnings" results in an income shortfall, the result of the CEEM analysis indicates the existence of economic obsolescence at Blue. The analyst will have to reflect the economic obsolescence by recognizing a proportional value decrease in all tangible and intangible assets that were valued by the application of the cost approach.

In the Blue valuation, none of the working capital accounts are valued by reference to the cost approach. And, no identifiable intangible assets were valued in the Blue illustrative example. Therefore, the analyst considered the Blue tangible asset accounts.

The Blue land was valued by reference to the market approach, so no economic obsolescence

Assets
Current Assets:
Cash	2,000
Accounts Receivable	3,000
Inventory	6,000
Total Current Assets	11,000

Property, Plant, and Equipment:
Land	12,000
Buildings	14,000
Equipment	24,000
Property, Plant, and Equipment	50,000

Intangible Assets:
Intangible Value in the Nature of Goodwill	5,000

Total Assets	66,000

Liabilities and Owners' Equity
Current Liabilities:
Accounts Payable	2,000
Wages Payable	2,000
Taxes Payable	2,000
Total Current Liabilities	6,000

Long-Term Liabilities:
Notes Payable	14,000
Mortgages Payable	10,000
Total Long-Term Liabilities	24,000

Owners' Equity:
Total Owners' Equity	36,000

Total Liabilities and Owners' Equity	66,000

Based on the above-summarized allocation of economic obsolescence, the final fair market value indication for the buildings is $13,700 and the final fair market value indication for the equipment is $29,300. The analyst can use these final value conclusions in the ANAV method analysis.

After this recognition of economic obsolescence, the CEEM analysis will conclude no positive intangible value in the nature of goodwill—and no negative goodwill related to a capitalized income shortfall.

Finally, the analyst prepared the ANAV method valuation-based balance sheet for Blue as of the December 31, 2016, valuation date. The analyst adjusted the GAAP-based balance sheet for both:

1. the results of the separately valued individual asset accounts and

2. the conclusion of the CEEM analysis (requiring an individual asset value adjustment for economic obsolescence).

The Blue ANAV method balance sheet is presented in Exhibit 8.

Based on the simplified fact set in this Blue illustrative example, the analyst performed the asset-based approach and the ANAV method. The analyst separately valued certain working capital and tangible asset assets. The analyst applied a CEEM analysis to collectively revalue the remaining asset accounts.

Based on the CEEM analysis, the analyst could not identify any intangible value in the nature of goodwill. Rather, the analyst quantified negative goodwill, indicating the existence of economic obsolescence. The analyst adjusted the value of the cost-approach-derived asset accounts for the recognition of this economic obsolescence.

Based on the CEEM analysis (after the recognition of economic obsolescence), the analyst concluded $0 intangible value in the nature of goodwill. And, based on the ANAV method valuation, the analyst concluded a $36,000 fair market value for 100 percent of the Blue owners' equity as of December 31, 2016.

CONCLUSION

The asset-based approach is a generally accepted business valuation approach. And, the AA method and the ANAV method are both generally accepted asset-based approach business valuation methods.

Clients (and their counsel and other professional advisers) often call on analysts to value closely held company and professional practice ownership interests for various taxation, transaction, financing, litigation, planning, and other reasons.

adjustment is necessary to the land value. The buildings and equipment were both valued by the application of the cost approach and the RCNLD method.

Therefore, the analyst will have to make an economic obsolescence adjustment to the building and equipment values. This economic obsolescence adjustment is summarized in Exhibit 7.

Exhibit 6
Blue Client Company
Adjusted Net Asset Value Method Analysis
Intangible Value in the Nature of Goodwill
As of December 31, 2016
in $000s

Capitalized Excess Earnings Method Valuation Analysis:

Blue Account Balances:		Fair Rate of Return	Required Earnings
Working Capital Assets [a]	5,000	15%	750
Property, Plant, and Equipment [b]	56,000	15%	8,400
Total Assets	61,000		9,150

Excess Earnings/Income Shortfall Analysis:

Blue Next Period Normalized Earnings	9,000
– Blue Required Earnings	9,150
= Blue Income Shortfall	(150)

Capitalized Excess Earnings/Income Shortfall Analysis:

Blue Income Shortfall	(150)
÷ Direct Capitalization Rate	15%
= Capitalized Income Shortfall	(1,000)
Economic Obsolescence	(1,000)

[a] Working capital includes $11 million of current assets less $6 million of current liabilities.
[b] Property, plant, and equipment includes $12 million of land, $14 million of buildings, and $30 million of equipment.

Exhibit 7
Blue Client Company
Recognition of Economic Obsolescence
As of December 31, 2016
in $000s

Accounts Valued by the Cost Approach	RCNLD Indication	Economic Obsolescence	Economic Obsolescence %	Economic Obsolescence	Fair Market Value
Buildings	14,000		2.3 [a]	(300)	13,700
Equipment	30,000		2.3 [a]	(700)	29,300
Total Cost Approach Assets	44,000	(1,000)	2.3 [a]	(1,000)	43,000

[a] The 2.3 percent economic obsolescence percent is calculated as $1 million economic obsolescence ÷ $44 million total RCNLD.

Assets	
Current Assets:	
Cash	2,000
Accounts Receivable	3,000
Inventory	6,000
Total Current Assets	11,000
Property, Plant, and Equipment:	
Land	12,000
Buildings	13,700
Equipment	29,300
Property, Plant, and Equipment	55,000
Total Assets	66,000
Liabilities and Owners' Equity	
Current Liabilities:	
Accounts Payable	2,000
Wages Payable	2,000
Taxes Payable	2,000
Total Current Liabilities	6,000
Long-Term Liabilities:	
Notes Payable	14,000
Mortgages Payable	10,000
Total Long-Term Liabilities	24,000
Owners' Equity:	
Total Owners' Equity	36,000
Total Liabilities and Owners' Equity	66,000

access to the current valuations of any of the company asset categories (such as inventory or real estate).

The ANAV method is an effective asset-based approach method when the analyst has limited access to the company management or the company facilities. And, the ANAV method is an effective asset-based approach method when either time, budget, or data constraints limit the analyst's ability to perform the AA method.

All asset-based approach methods inform both the client and any other parties relying on the business valuation as to the tangible asset versus intangible asset source of value within the company.

Accordingly, the ANAV method can be applied to a company that is either tangible-asset-intensive or intangible-asset-intensive. And, like any other asset-based approach method, both the AA method and the ANAV method can be used to value either operating companies or asset holding companies.

In addition, both the AA method and the ANAV method can typically be applied to conclude various alternative standards of value and alternative premises of value.

Like all asset-based approach business valuation methods, both the AA method and the ANAV method typically conclude a marketable, controlling ownership interest level of value.

If the subject valuation assignment calls for a different level of value, then the analyst may have to consider the application of valuation adjustments— such as a discount for lack of marketability or a discount for lack of control.

Finally, both the AA method and the ANAV method may be a particularly applicable method in a valuation when other business valuation approaches and methods are not applicable for one reason or another.

And, either the AA method or the ANAV method may always be used as a supplemental or supporting business valuation method to be used in the reconciliation of income approach or market approach valuation methods in the closely held business, business ownership interest, or security valuation.

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This discussion explained and illustrated the application of the ANAV method for experienced (and less experienced) analysts. And, this discussion summarized what clients (and their counsel and other advisers) need to know about the application of the ANAV business valuation method.

The AA method requires the discrete revaluation of all of the company's assets (both tangible and intangible) and all of the company's liabilities (both recorded and contingent). The ANAV method typically involves the aggregate revaluation of all of the company's tangible and intangible assets. However, the ANAV method can also be used if the analyst has