

CPE Article

What CPAs Need to Know about Fair Value Measurements

By Robert F. Reilly, CPA

Curriculum: Accounting and auditing

Level: Basic

Designed For: CPAs in public practice and industry

Objectives: To provide information CPAs need to know to review fair value measurements (FVMs), identify the typical errors and omissions that CPAs should look for in any consideration of an FVM, and summarize best practices for CPAs who are developing and reporting FVMs.

Key Topics: First principles, when FVMs apply, related term definitions, differences between fair value measurements and fair market value valuations, and top 10 best practices for developing and reporting a fair value measurement

Prerequisites: None

Advanced Preparation: None

CPA valuation analysts are often asked to develop and report on a fair value measurement (FVM) for financial accounting purposes. For purposes of this discussion, an FVM is a valuation analyses prepared in compliance with the Financial Accounting Standards Board (FASB) Accounting Standards Codification (ASC) topic 820, *Fair Value Measurement*. This discussion focuses on FVMs developed to comply with ASC topic 805, *Business Combinations*. However, as explained below, FVMs may be developed for many financial accounting purposes.

CPA valuation analysts are sometimes asked to review FVMs prepared by other analysts – whether those other analysts are CPAs or not. To borrow a term from the *Uniform Standards of Professional Appraisal Practice* (USPAP), these analyses are sometimes called review appraisals. These review appraisals are sometimes developed as part of the financial statement audit process. But these review appraisals may also be developed for financing purposes, forensic analysis purposes and other purposes.

CPA auditors often have to review and rely on FVMs as part of the financial statement audit process. Some larger public accounting firms may have valuation analysts on staff to assist the auditor. But, often, the auditor has to perform the audit examination of the FVM.

CPA controllers and chief financial officers (CFOs) may have to select, retain and rely on CPA valuation analysts to develop the FVM. Such controllers and CFOs should have sufficient expertise to allow them to accept the FVM and incorporate the FVM conclusions into their company's financial statements.

The scope of this article does not include a comprehensive explanation of FVM approaches, methods and procedures. Rather, the article does provide the minimum the CPAs need to know to review FVMs. In particular, this discussion identifies the typical errors and omissions that CPAs should look for in any consideration of an FVM.

First, this article reviews what CPAs should know about the first principles related to FVMs developed for U.S. generally accepted accounting principles (GAAP) compliance purposes. Second, this article summarizes best practices for CPAs who are developing and reporting fair value measurements. In particular, this article recommends best practices for avoiding the top 10 most typical FVM errors and omissions. Third, this article recommends best practices for handling other (but still common) FVM issues. Finally, this article presents CPA caveats and recommends reporting best practices related to valuation analyses prepared for various financial accounting purposes.

This article focuses on best practices related to an FVM developed with regard to the allocation of a business combination transaction purchase price. However, many of the best practices recommended also apply to an FVM developed for other financial accounting purposes.

Fair Value Measurement First Principles

ASC topic 820, *Fair Value Measurement*, defines the term fair value as follows: "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." This ASC topic 820 fair value definition includes several important considerations with regard to the hypothetical fair value transaction. The requirements for such a fair value transaction include the following:

- An orderly transaction;
- A transaction between market participants;
- A transaction in the principal or the most advantageous market; and
- A transaction value indicating an exit price

ASC topic 820 provides rules-based guidance to both CPA valuation analysts and auditors with regard to the following FVM considerations:

- Valuation principles and methodologies;
- Valuation techniques; and
- A hierarchy of valuation analysis inputs

When Do Fair Value Measurements Apply?

The following ASC topics provide professional guidance with regard to transactions and/or events in which an FVM applies:

- ASC 718 – share-based payments
- ASC 410 and 440 – asset retirement obligations
- ASC 805 – business combinations
- ASC 460 – guaranties

- ASC 845 and 605 – nonmonetary transactions
- ASC 420 – restructuring obligations
- ASC 852 – reorganization “fresh start accounting”
- ASC 350 – goodwill impairment
- ASC 360 – long-lived asset impairment
- ASC 320 – investments – debt and equity securities
- ASC 321 – investments – equity securities

This article focuses on an FVM developed and reported with regard to ASC topic 805, *Business Combinations*. That is, these best practices relate to an FVM developed for allocation of purchase price purposes within the context of a business combination. Nonetheless, many of the best practices recommended in this discussion also apply to an FVM developed for other financial accounting purposes.

When Do Fair Market Value Valuations Apply?

To better understand an FVM, it may be helpful to contrast an FVM with a fair market value valuation. A fair market value (FMV) valuation may be developed for numerous nonfinancial accounting purposes, including the following:

- Federal income tax compliance;
- Federal gift and estate tax compliance;
- Bankruptcy;
- Financings;
- Transaction structurings;
- Commercial contracts; and
- Other

FMV valuations are typically developed when the purpose of the analysis is to emulate the negotiation considerations of a willing buyer and a willing seller.

Differences Between Fair Value Measurements and Fair Market Value Valuations

An FVM (developed for financial accounting compliance purposes) and an FMV valuation (developed for other purposes) have numerous conceptual and practical differences. Both CPA valuation analysts and auditors should be aware of these differences.

An FVM is a rules-based analysis, with the analysis rules provided primarily by ASC topic 820. An FVM applies in many financial accounting compliance situations. In contrast, an FMV valuation is a judgment-based analysis. Applying independent professional judgement regarding valuation approaches, methods and procedures, an independent appraiser attempts to emulate a market transaction in the development of the FMV valuation. FMV valuations often apply in transactional situations – but they do not typically apply in financial accounting compliance situations.

Discussion Definitions

This discussion applies the definitions presented as follows. The term “analyst” means any valuation specialist in any property appraisal discipline (including business, real estate, tangible

personal property, and intangible personal property). The term "principal analyst" is the individual with overall responsibility for the allocation of purchase price FVM engagement team. The term "best practices" represents the general consensus regarding current valuation profession practices and procedures. That is, the term "best practices" does not imply either valuation professional standards generally or allocation of purchase price engagement requirements specifically.

Top 10 Best Practices for Developing and Reporting a Fair Value Measurement

This section presents 10 recommendations for analysts who are developing an FVM for financial accounting purposes. For the most part, these best practices assume an FVM developed for ASC topic 805 compliance purposes. However, most of these best practices would also apply to an FVM developed for other financial accounting purposes.

Best Practice Number 1: Review the Transaction Documents

As a best practice, the analyst should review the stock purchase agreement or the asset purchase agreement related to the subject business combination transaction. The allocation of purchase price should be consistent with the subject transaction documents – and with the transaction document's intent. In particular, the analyst should be aware of how the following topics are described in the asset purchase or stock purchase transaction documents:

- Assets and liabilities included in the transaction;
- Assets and liabilities excluded in the transaction;
- Assets and liabilities emphasized in the document;
- Asset and liability balances (minimum or maximum) stated in the document.

The analyst is valuing the acquired assets and liabilities within the context of a specifically negotiated – and carefully documented – business combination transaction.

Best Practice Number 2: At-Market Contracts May Have Intangible Asset Value

Under the guidance provided by ASC topic 805, a FVM value is typically only assigned to above-market contract-related intangible assets. One procedure that analysts typically apply to value such a contract-related intangible asset is to present value the above-market income metric (e.g., cash flow or other income-related metric) over the contract's remaining contract life.

As a best practice procedure, analysts may also consider that an at-market customer (e.g., capacity purchase agreement) or supplier contract may also have a FVM value. One procedure that analysts may consider to value such an at-market contract-related intangible asset is to:

- Present value the contract-related at-market expected future cash flow over the contract's remaining contract life at the target company's weighted average cost of capital (WACC);
- Present value the contract-related at-market expected future cash flow over the contract's remaining contract life at a lower present value discount rate (i.e., the lower discount rate corresponds to the reduced risk to the target company because it is a party to a long-term customer or supplier contract); and
- Compare the two present value conclusions; the difference between the two present value calculations would indicate the FVM of the at-market contract-related intangible asset.

This intangible asset valuation procedure recognizes that a long-term at-market supplier contract or customer contract may have a fair value – due to the fact that the long-term contract reduces the operational risk of the target company's business.

Best Practice Number 3: Value the Acquired Liabilities – Not Just the Acquired Assets

In a business combination, ASC topic 805 calls for the FVM of both the acquired liabilities and the acquired assets. The fair value of the transferred liabilities in the business combination – particularly the long-term debt – may not be the same as the recorded accounting book value of the transferred liabilities. Any assumption that the long-term debt accounting book value equals the long-term debt fair value should be clearly disclosed – and adequately supported – in the allocation of purchase price valuation report.

In addition to the FVM of the recorded liabilities transferred in the business combination, the allocation of purchase price should consider the FVM of any of the following liabilities that may be transferred (or created) in the transaction:

- Contingent liabilities;
- Purchase price earnout provisions;
- Asset retirement obligations;
- Other (non-long-term debt) liabilities.

As a best practice, the FVM of any transferred liability is an important component of any allocation of purchase price developed for ASC topic 805 compliance purposes.

Best Practice Number 4: Apply the CEEM or the MEEM at Least Once

As a best practice in an ASC topic 805 allocation of purchase price, analysts should typically value at least one intangible asset through the application of either:

- The multiperiod excess earnings method (MEEM) or
- The capitalized excess earnings method (CEEM).

The MEEM or the CEEM is often applied in the FVM of a customer-related intangible asset. However, the MEEM or the CEEM may be applied in the FVM of any income-producing intangible asset acquired in the business combination. This MEEM or CEEM application procedure – through its use of a contributory asset charge (or CAC) based on the concluded fair values of all other acquired assets – will ensure that the total fair value of all of the acquired assets is not overstated.

This MEEM or CEEM application procedure will help to identify and help to quantify the need to apply an economic obsolescence adjustment to any of the acquired assets valued by the application of the cost approach. In the allocation of purchase price, the CEEM may also be applied as a reasonableness test of the amount of goodwill that is measured by the application of a residual calculation. That is, the CEEM goodwill valuation should be approximately equal to the goodwill calculation developed by the residual "method" required by ASC topic 805.

The application of the MEEM or the CEEM provides a reasonableness check of the fair values concluded for all the assets acquired in the business combination. The total fair value of all the acquired tangible assets and intangible assets can be understated or overstated if all the acquired asset accounts are only valued by application of cost approach valuation methods, market approach valuation methods, and (non-CEEM and non-MEEM) income approach valuation methods. The other generally accepted intangible asset income approach valuation methods do not provide this reasonableness test function that the CEEM or the MEEM do.

Best Practice Number 5: Economic Obsolescence Measurement

As a best practice in an allocation of purchase price, economic obsolescence should be consistently analyzed and (if it exists in the business combination) consistently applied in all acquired assets valued by the application of the cost approach. This best practice of a consistent economic obsolescence analysis should be applied to all assets valued by application of the cost approach, including all tangible assets and all intangible assets.

All of the engagement team members should understand which analyst is responsible for measuring the economic obsolescence. That is, will the economic obsolescence measurement be the responsibility of the intangible asset valuation specialist, the tangible asset valuation specialist or someone else?

As a best practice, the decision as to which analyst should be responsible for measuring the economic obsolescence amount (if any) should be clearly communicated throughout the allocation of purchase price engagement team. Without that clear understanding, each valuation analyst may assume another analyst will measure economic obsolescence, or each analyst will measure any economic obsolescence independently – and inconsistently – from the other analysts on the engagement team. Without an understanding of who will be responsible for developing a consistent economic obsolescence analysis for all of the acquired assets in the allocation of purchase price, any acquired assets valued by the cost approach may be valued inconsistently and/or overvalued.

Best Practice Number 6: Useful Economic Life Assumption

As a best practice in the allocation of purchase price, the analyst should document and disclose all useful economic life (UEL) assumptions related to all acquired tangible assets and intangible assets. That UEL disclosure and documentation should include the basis for (i.e., the support for) each asset category UEL estimate.

Particularly with regard to any acquired income-producing intangible asset, the analyst should understand that an asset's average UEL is typically not the same as that asset's total UEL divided by 2. This mathematical relationship impacts the FVM of all acquired tangible and intangible assets. This impact may be greater with regard to the acquired intangible assets. This is because the income produced by the acquired intangible asset (e.g., a customer-related intangible asset) may vary from year to year. Therefore, this UEL consideration particularly impacts the FVM of all acquired intangible assets valued by the income approach.

For example, let's consider the fair value of a customer relationship intangible asset assuming the expected future income is projected over the asset's average UEL. Let's consider the fair value of

the same customer relationship with the expected future income projected down the expected future income decay curve associated with the asset's total UEL. The target company management informs the analyst that management expects a 20% annual customer turnover rate – or a five-year average UEL for the acquired group of customer relationships. In this example, the analyst concludes the FVM of the acquired customer relationship intangible asset.

The analyst applies the income approach and the discounted cash flow (DCF) method to value this customer-related intangible asset. Applying the income approach and the DCF method, the analyst can either:

- Present value the customer-related expected future cash flow over the next five-year period (i.e., the intangible asset's average UEL period) or
- Present value the customer-related expected future cash flow decreasing at a 20% annual attribution rate (i.e., over the intangible asset's total UEL period).

The concluded FVM could vary materially based on which of these two UEL assumptions that analyst applies in the DCF analysis.

Let's assume the current (i.e., acquisition date) customer relationships generate a total of \$100 in annual cash flow. In applying the income approach valuation analysis, the two alternative cash flow projections that the analyst may consider are presented in Exhibit 1.

Exhibit 1

Customer Relationships Intangible Asset Fair Value Measurement
Applying Alternative UEL Assumptions

Projection Year	5-Year Average UEL Annual Projected Cash Flow (\$)	20% Annual Decay Rate UEL Annual Projected Cash Flow (\$)
1	100	100
2	100	80
3	100	64
4	100	51
5	100	41
6		33
7		26
8		21
9		17
10		13
11		11
12		9

At any selected discount rate for the intangible asset income approach valuation, the present values (i.e., the FVMs) of the above two customer relationship intangible asset cash flow projections will be materially different.

Best Practice Number 7: Ensure WACC = WARA = IRR

As a best practice in any ASC topic 805 allocation of purchase price, the analyst should test to measure (1) that these three rates are calculated and (2) that the three rates are approximately equal to each other:

- The weighted average cost of capital (WACC) applied in the valuation of the acquired assets;
- The weighted average return on assets (WARA) implied by the fair value conclusions for all of the acquired net assets;
- The internal rate of return (IRR) implied by the business combination transaction total purchase price – compared to the target company's entity-level cash flow projection.

This best practice procedure provides a reasonableness test on the WACC that is applied in all of the valuation analyses developed for all of the income-producing acquired assets (both tangible assets and intangible assets). This best practice procedure provides a reasonableness test of the analyst's total fair value measurement conclusions for all of the acquired assets (both tangible assets and intangible assets). And this best practice procedure ensures that the analyst understands (and that the allocation of purchase price reflects) the actual business combination acquisition transaction, including the acquirer's expected cash flow from the target company and the acquirer's expected return on investment on the target company acquisition purchase price.

Best Practice Number 8: Develop a Goodwill Valuation

As a best practice in an ASC topic 805 allocation of purchase price, the analyst should quantify the goodwill associated with the target company acquisition. In this best practice, the analyst may apply a CEEM (or other) analysis to value the target company's goodwill.

Of course, ASC topic 805 requires that goodwill be "measured" (not "valued") as a residual amount in the business combination allocation of purchase price. Therefore, this residual calculation will determine the amount of goodwill that is actually recorded on the post-acquisition balance sheet. Nonetheless, the analyst may compare:

1. The quantified value of the goodwill (based on, say, the CEEM analysis) to
2. The residual amount of goodwill measured in the allocation of purchase price.

These two goodwill amounts (i.e., CEEM value indication and the residual calculation) should be reasonably close to each other.

This best practice procedure provides a reasonableness test of the calculated residual amount of goodwill in the allocation of purchase price. This best practice indicates if the analyst either undervalued or overvalued the FVM of the various acquired net asset categories. In addition, this best practice tests whether the residual goodwill calculation amount is sufficient to encompass an implied fair value for the acquired trained and assembled workforce intangible asset.

Best Practice Number 9: Develop an Assembled Workforce Valuation

The analyst may develop at least a preliminary FVM for the acquired assembled workforce intangible asset in each ASC topic 805 allocation of purchase price. CPA analysts and auditors understand that the trained and assembled workforce intangible asset value is not separately reported in an ASC topic 805 allocation of purchase price. However, the allocation of purchase price residual goodwill measurement should be sufficient to include the indicated FVM for the acquired assembled workforce intangible asset.

As a best practice, this preliminary assembled workforce FVM allows a due diligence check on the reasonableness of the residual goodwill measurement. A trained and assembled workforce is an Internal Revenue Code Section 197 intangible asset within the context of a federal income tax allocation of purchase price. Accordingly, if the business combination is a taxable transaction for federal income tax purposes, the analyst may have to conclude the FMV of the assembled workforce – in order to provide a tax basis for Section 197 amortization purposes.

Best Practice Number 10: Consider the Tax Amortization Benefit Adjustment in Certain Intangible Asset Valuations

The tax amortization benefit (TAB) adjustment recognizes that some acquired intangible assets qualify as Section 197 amortizable intangible assets for federal income tax purposes. There is a value increment associated with the market participant being able to claim an amortization income tax deduction for the intangible asset's purchase price. That tax deduction is calculated over the Section 197 15-year amortization period. That TAB value increment typically increases the fair value measurement of the acquired intangible asset.

Some income-producing intangible assets are valued as the present value of the net cash flow (or some other income metric) generated by the acquired intangible asset over its expected UEL. In the valuations of these income-producing intangible assets, the expected future cash flow and the present value discount rate are typically developed on an after-tax basis. Typically, a marginal income tax rate is applied in this income approach valuation analysis.

If the intangible asset value is amortizable for federal income tax purposes, there is an additional (amortization) expense that should be recognized in the income projection. The decreased taxable income (related to the amortization expense) results in decreased income tax expense – but increased future net cash flow (after the addback of the noncash amortization expense).

As an alternative explanation for why a TAB adjustment is appropriate, the CPA should understand that the use of the marginal tax rate overstates the income tax expense related with the income generated by the amortizable intangible asset. Based on this explanation, the TAB is the present value of the income tax expense difference between:

1. The assumed marginal tax rate and
2. The actual/effective (after amortization deduction) tax rate.

That TAB adjustment increases the intangible asset's annual cash flow over the Section 197 15-year amortization period and thereby increases the income approach value. It is a best practice to add the TAB adjustment to an intangible asset value indication:

- Related to a Section 197 intangible asset;

- Developed by the application of the income approach;
- Developed using after-tax valuation variables;
- Developed using a marginal income tax rate; and
- Related to an assumed taxable asset transfer business combination structure.

It is a best practice not to add the TAB adjustment to an intangible asset value indication:

- Related to an intangible asset that does not qualify as a Section 197 intangible asset;
- Developed by the application of the cost approach or the market approach;
- Developed using pretax valuation variables;
- Developed using a reduced income tax rate; and
- Related to an assumed nontaxable business combination structure.

To quantify the fair value of the income-producing intangible asset with the TAB adjustment, one procedure is to:

- Value the intangible asset without the inclusion of the TAB adjustment in the discounted cash flow valuation analysis;
- Conclude that preliminary income approach value indication for the intangible asset;
- Divide the preliminary intangible asset value indication by 15 years;
- Subtract these annual amortization expense deductions from the intangible asset's expected future income projection;
- Re-run the intangible asset discounted cash flow valuation analysis but in this second iteration:
 - subtract the annual amortization expense from the projected pretax income;
 - apply the marginal income tax rate in the income projection;
 - add the annual (noncash) amortization expense to the projected annual cash flow; and
 - present value the adjusted annual cash flow projection.

The revised (or second iteration) discounted cash flow analysis value conclusion incorporates the TAB adjustment value increment.

An alternative procedure to quantify the fair value of the income-producing intangible asset with the TAB adjustment is to apply the following formula:

TAB Adjustment Factor = $1 / (1 - (\text{income tax rate} / \text{amortization period})) \text{PVAF}$

$$TAB \text{ Adjustment Factor} = \frac{1}{1 - \left(\frac{\text{income tax rate}}{\text{amortization period}} \right) PVAF}$$

where:

The "income tax rate" is the income tax rate applied in the intangible asset discounted cash flow valuation analysis

The "amortization period" is 15 years

The present value annuity factor (PVAF) is based on the discount rate applied in the intangible asset discounted cash flow analysis

To incorporate this TAB adjustment measurement into the income-producing intangible asset valuation, the analyst would simply apply the following formula:

$$\text{Preliminary Value} \times \text{TAB Adjustment Factor} = \text{Final Value}$$

where:

The "preliminary value" is the income approach value indication for the income-producing intangible asset before consideration of the TAB adjustment

The "TAB adjustment factor" is calculated as presented in the above-listed formula

The "final value" is the FVM of the income-producing intangible asset after the inclusion of the TAB adjustment value increment

Best Practices for Other Fair Value Measurement Issues

In addition to the "top 10" best practices for FVM recommended above, there are numerous other issues that CPAs should consider with regard to analyses developed for financial accounting purposes. The following discussion presents additional best practices related to these slightly less common – but still important – FVM development and reporting issues.

Best Practice Number 11: Consider Both Excess Assets and Surplus Assets

As a best practice in the ASC topic 805 allocation of purchase price, the CPA should consider whether the target company owns either excess assets or surplus assets. First, the CPA should understand the difference between excess assets and surplus assets. Excess assets are not needed to serve or support the target company business operations. Excess assets have the potential to be sold separately from the other assets of the target company. Excess assets should be valued separately and independently from other acquired assets.

Surplus assets are not needed to serve or support the target company business operations, but surplus assets cannot be separated from the target company and sold separately. Therefore, surplus assets should be valued to the target company with any other assets that are in the same asset category.

Second, the CPA should value any target company excess assets and any target company surplus assets included in the business combination. The CPA should apply the appropriate generally accepted property appraisal approach and method to value either the excess assets or the surplus assets.

Third, the CPA should include the fair value measurement conclusion of any excess assets or any surplus assets in the allocation of purchase price.

Best Practice Number 12: Responsibility of the Principal Analyst

Most ASC topic 805 allocation of purchase price analyses are developed by a team of valuation specialists. This is because the FVM typically involves a number of different property valuation disciplines. These property valuation disciplines may include real estate appraisal, tangible personal property appraisal, intangible personal property appraisal, and other financial asset appraisal.

In multidiscipline engagement teams, there is typically a principal analyst or team leader. This principal analyst coordinates the efforts of the multidiscipline engagement team. This principal analyst has the primary responsibility for concluding and reporting the allocation of purchase price fair value measurements.

As a best practice, and as a valuation professional standard, the allocation of purchase price valuation report certification should disclose what asset values the principal analyst is responsible for and what asset values any other property valuation specialists are responsible for. Without such a valuation report certification disclosure limitation, the principal analyst is responsible for all of the asset (and liability) fair value measurement conclusions.

As a best practice, the principal analyst may obtain written confirmation from each property valuation specialist on the engagement team with regard to the following issues:

- The acknowledgement of their responsibility for the individual asset category fair value measurement conclusions;
- The acknowledgement that their concluded standard of value for their property discipline (e.g., market value) is consistent with the ASC topic 805 fair value standard of value.

Best Practice Number 13: Disclose Assumptions Regarding Any Accounts Not Appraised

In an allocation of purchase price analysis, it is a best practice to disclose and document all assumptions regarding any asset accounts and any liability accounts that were not subject to valuation procedures. Depending on the scope of work agreed to in the allocation of purchase price engagement, CPAs sometimes assume that fair value equals accounting book value with regard to the following categories of acquired assets and liabilities:

- Working capital accounts;
- Other assets/investments;
- Tax assets and liabilities;
- Regulatory assets and liabilities;
- Certain (nondebt) liabilities.

If the CPA made such an assumption in the allocation of purchase price analysis, this assumption should be disclosed, explained and supported. In the allocation of purchase price valuation report, the CPA should explain why it is credible to assume that no revaluation analysis is required for these acquired asset or liability accounts.

Best Practice Number 14: Compliance with VPO Professional Standards

All analysts (from all property valuation disciplines) on the allocation of purchase price engagement team should be familiar with all valuation professional organization (VPO) appraisal standards that may apply to the FVM assignment. Such VPO appraisal standards may include the following:

- *Uniform Standards of Professional Appraisal Practice;*
- International Valuation Standards Council standards;

- American Institute of CPAs *Statement on Standards for Valuation Services*;
- Appraisal Institute standards;
- American Society of Appraisers standards;
- Other VPO standards.

The allocation of purchase price valuation report should disclose which VPO standards the valuation development and the valuation report complied with. To ensure compliance with all relevant VPO standards, the principal analyst of the engagement team should understand all VPO standards that may apply to the allocation of purchase price assignment.

The principal analyst should also be aware of – and should comply with – the Certified in Entity and Intangibles Valuation (CEIV) diligence and documentation professional standards. These CEIV best practices are documented in the following two publications:

- *The Mandatory Performance Framework*; and
- *The Application of the Mandatory Performance Framework*.

Best Practice Number 15: Document and Disclose All Extraordinary Assumptions

As a best practice, and as a valuation professional standards requirement, the analyst should document and disclose all assumptions related to the allocation of purchase price analysis. In addition to any analyst-developed assumptions, the valuation report should disclose any material management-developed representations, including:

- Target company financial projections;
- Asset conditions;
- Projected asset replacements, renewals, retirements;
- Estimates of tangible asset and intangible asset UELs; and
- Other valuation variable-related assumptions.

Each analyst-developed and each management-developed assumption or representation should be disclosed and documented in the valuation report. The valuation report reader should be able to understand the basis for all material valuation variable-related assumptions in the allocation of purchase price.

The analyst should understand that fair value is the value of the target company to a market participant. Fair value is not necessarily the value of the target company to the actual buyer of the target company. The actual buyer often applies buyer-specific assumptions in the transaction pricing analysis. Such buyer-specific assumptions applied in the business combination pricing considerations may include the following:

- Buyer-specific financial projections;
- Buyer-specific expected synergies and other post-acquisition consolidation benefits;
- Buyer-specific cost of capital considerations;
- Buyer-specific income tax considerations.

As part of the allocation of purchase price due diligence, the analyst should come to understand all of the buyer's specific transaction pricing considerations. In addition, the analyst should adjust (or

normalize) all buyer-provided financial projections and other valuation analysis variables in order to eliminate any nonmarket participant assumptions from the fair value measurement analyses.

Best Practice Number 17: Understand Property Appraisal Jargon and Procedures

The principal analyst should communicate directly with all property valuation specialists working on the allocation of purchase price engagement team. As mentioned above, the engagement team often includes valuation specialists from various property appraisal disciplines, including real estate appraisal, tangible personal property appraisal and intangible personal property appraisal. The principal analyst on the engagement team should ensure that all property valuation specialists on the team apply a consistent:

- Standard of value and premise of value;
- Highest and best use (HABU) conclusion;
- Set of transaction-based or market-participant-based valuation variables, such as present value discount rate, expected long-term growth rate and income tax rate; and
- Understanding of the target acquisition transaction and the business combination transaction purchase price.

The principal analyst should generally understand the property appraisal approaches, methods and procedures applied in all of the property appraisal disciplines that affect the purchase price allocation. For the engagement team to work effectively and for the overall purchase price allocation to be internally consistent, the principal analyst should coordinate the various analyses developed by the valuation specialists from the various property appraisal disciplines.

To function as the engagement team leader and coordinator, the principal analyst should be familiar with the appraisal jargon of the various property appraisal disciplines involved in the allocation of purchase price. As a few simple examples of such property discipline-specific appraisal jargon, the principal analyst should understand that:

- Land is not the same as site;
- Replacement cost new is not the same as reproduction cost new; and
- Appraisal depreciation is not the same as accounting depreciation.

Best Practice Number 18: The Allocation of Purchase Price Report

The allocation of purchase price report will typically include the following:

- A list of all the documents that the analyst relied on to develop the FVM;
- A list of all the individuals (including members of target company management) who the analyst interviewed.

In addition, the allocation of purchase price report will typically include (often in a report appendix) all of the important source documents that the analyst relied on to develop the FVM. All of the allocation of purchase price analyses and FVM conclusions presented in the report should be replicable. The allocation of purchase price report should include sufficient data and explanation in order to allow another analyst to replicate the valuation analyses and reach the report's FVM conclusions.

Best Practice Number 19: Allocation of Purchase Price Report Value Conclusion

The allocation of purchase price report should appropriately describe the analyst's FVM conclusion. The report should make the analyst's assignment – and the analyst's conclusion – clear to the report reader, including the understanding that:

- Analysts "estimate" fair value (in an attempt to emulate market participant actions);
- Analysts do not "determine" fair value (because analysts are not transaction negotiators); and
- Market participants actually do "determine" fair values (in their business combination transaction negotiations).

Best Practice Number 20: Do Not Confuse Accuracy with Precision

The allocation of purchase price report should not imply a false level of precision in the FVM analyses and conclusions. Accuracy is not the same as precision. Analysts should understand that the allocation of purchase price report can be more accurate (meaning correct or credible) at a lower level of precision. Analysts should apply a consistent level of mathematical rounding (i.e., precision):

- Within each asset or liability valuation analysis;
- Within each valuation method applied or each asset or liability value indication concluded;
- For each asset or liability account analyzed in the FVM;
- In any asset or liability final fair value conclusion.

Analysts should typically apply the "rule of significant digits" principle of algebra when adopting a rounding convention in the allocation of purchase price analysis and report.

Best Practice Number 21: Allocation of Purchase Price Report Disclosures

The allocation of purchase price report should clearly explain how all of the selected valuation variables were developed. That is, the allocation of purchase price report should distinguish between the following categories of valuation variables. They are valuation variables based on:

- Empirical data;
- The analyst's quantitative or qualitative analysis;
- The analyst's assumptions;
- Management's representations.

To make the alternative categories of valuation variable development clear to the report reader, the allocation of purchase price report may include language such as the following:

- The data indicate . . .
- My analysis indicates . . .
- I assume that . . .

Best Practice Number 22: Consider Both the Buyer and the Seller Expectations

The analyst may conduct due diligence interviews of the buyer's transaction negotiators to better understand the business combination transaction. The analyst may ask questions such as the following:

- What did you think you were buying in the transaction?
- What assets and liabilities were important to you during the transaction negotiation?
- What (nonmarket) strategic factors did you consider in the transaction?

As a best practice, the analyst may conduct due diligence interviews of the seller's transaction negotiators in order to better understand the business combination transaction. The analyst may ask questions such as the following:

- What did you think you were selling in the transaction?
- What assets and liabilities were important to you during the transaction negotiation?
- What (nonmarket) strategic factors did you consider in the transaction?

The allocation of purchase price fair value measurement conclusions should be generally consistent with the transaction participants' expectations.

Best Practice Number 23: The Assets Should Be Valued as Part of the Acquired Entity

All of the asset FVM conclusions should represent market participant values. All of the asset FVM conclusions should be an "exit price."

However, the target company asset FVM conclusions typically should not be stand-alone values. That is because the business combination buyer purchased all the acquired assets as part of one target company going-concern entity and the business combination buyer will "exit" the acquired business by selling one target company going-concern entity. The allocation of purchase price analysis should incorporate consistent valuation variables in each component asset FVM.

For example, all the component asset analyses in the purchase price allocation should apply consistent valuation variables such as the following:

- Present value discount rates.
- Direct capitalization rates.
- Expected long-term growth rates.
- Income tax rates.
- Economic obsolescence adjustments.
- Other valuation variables.

All the property valuation specialists should typically appraise all of the target company's acquired assets as part of one going-concern business entity.

Best Practice Number 24: Goodwill Is a Measurement – Not a Valuation

It is a best practice for the allocation of purchase price report to refer to the residual goodwill calculation as a measurement. Analysts "value" working capital accounts, real estate, tangible personal property, identifiable intangible assets, and liabilities. In contrast, analysts "measure"

goodwill. This jargon (i.e., "value" versus "measure") is consistent with ASC topic 805, the *Mandatory Performance Framework*, and other best practices. This jargon (i.e., "value" versus "measure") discloses an important distinction to the allocation of purchase price report reader.

Best Practice Number 25: The Transaction Price is Not Always Fair Value

The analyst should determine whether or not the actual transaction purchase price is equal to the target company fair value. The actual business combination purchase price is often greater than the target company's fair value. The actual transaction purchase price may exceed the market participant fair value for the target company for many reasons, including the following:

- The buyer may have included buyer-specific considerations in the transaction pricing analysis.
- The buyer may have overpaid for the target company due to buyer emotion or to competitive bidding during the transaction negotiation process.

The analyst should understand that the purchase price may also be less than the target company's fair value. For example, the seller may have wanted to close a transaction quickly or privately – and therefore accepted a price that is less than a market participant fair value price. Accordingly, the analyst should develop a target-company-level valuation analysis. The purpose of this analysis is to determine if the business combination transaction is, in fact, a bargain purchase transaction. The analyst should consider the fair value of the target company when analyzing the fair value of the target company acquired assets.

Analyst Caveats Regarding the Fair Value Measurement Analysis

This discussion section recommends several caveats for the analyst who is leading the allocation of purchase price engagement team. These caveats primarily relate to the procedural components of an FVM as a valuation service.

Analyst Caveat Number 1: Have Someone Check Your Work

As a best practice, the analyst should have a trusted colleague review all the allocation of purchase-price-related valuation work. This review may include the following engagement components:

- All analyst valuation judgments;
- All valuation variables selected (and rejected) by the analyst;
- All math calculations;
- All narrative allocation of purchase price report sections;
- The consistency of all allocation of purchase price report exhibits to the report narrative;
- The reasonableness of the final FVM conclusions.

The analyst may also have a trusted colleague check the allocation purchase price for compliance with all relevant VPO professional standards. Of course, the analyst should ensure that the trusted colleague is technically competent to perform this professional standards review procedure.

Analyst Caveat Number 2: Don't Misrepresent the Engagement Work Product

If the analyst is engaged to advise the acquirer company management with regard to that management's valuation analyses, the analyst is performing an advisory service. When performing such an advisory service, the analyst is not developing an independent valuation or appraisal. Rather, the analyst is assisting acquirer management with management's valuation or appraisal.

The acquirer company management needs to understand what the analyst is responsible for – and what the company management is responsible for. In addition, the allocation of purchase price report reader needs to understand what the analyst is responsible for and what (the non-valuation-specialist) acquirer company management is responsible for.

Analyst Caveat Number 3: Will You Support Your Analysis?

Some analysts are not willing to support the allocation of purchase price valuation analysis during a challenge or contrarian review. For example, some accounting firms perform valuation advisory services to assist the acquirer company management with the client's purchase price allocation. These accounting firms may not be willing to support the allocation or purchase price valuations – through expert testimony – when the FVM is challenged.

These allocation of purchase price FVM may be challenged:

- By the SEC (for public company acquirers);
- By dissenting minority shareholders;
- By financial institutions;
- In claims of accounting fraud and misrepresentation;
- In an IRS tax audit.

If the analyst is not willing to support the allocation of purchase price analyses and conclusions through expert testimony, the analyst should make that position perfectly clear to the acquirer company client at the beginning of the engagement.

Analyst Caveat Number 4: If You Don't Know What You Are Doing . . .

If the analyst is not completely competent to develop all aspects of the allocation of purchase price assignment, the analyst should not perform the analysis. An allocation of purchase price engagement requires many specialized skills. This type of specialized engagement is not the place for "on the job" training.

An allocation of purchase price valuation is not a business valuation. It is a property appraisal. Even experienced business valuation specialists may not have the specialized property appraisal skill set needed to develop the allocation of purchase price FVM.

The allocation of purchase price assignment requires a unique combination of the following skill sets: financial accounting, income tax accounting, financial analysis, and property appraisal. Obviously, the analyst performing this type of client engagement should have the appropriate professional competence.

Summary – What CPAs Need to Know

As a valuation analyst, the CPA may be called on to develop an FMV related to ASC 805 or to other financial accounting requirements. As an auditor, the CPA may have to review and accept the analyst's FVM that is incorporated in a company's financial statements. As a controller or CFO, the CPA may have to select, retain and rely on the analyst to develop the FVM that will impact the company's financial statements.

This discussion summarized what CPAs should know about the best practices for developing and reporting an FVM for financial accounting compliance purposes. Although many of these best practices relate to all FVMs developed for various ASC topic 820, *Fair Value Measurement*, financial accounting purposes, this discussion focused on allocation of purchase price analyses prepared in compliance with ASC topic 805, *Business Combinations*. In particular, this discussion considered the following topics:

- When an FVM applies in financial accounting instances;
- The differences between an FVM and an FMV valuation;
- Top 10 best practices for avoiding common FVM errors;
- Other best practices for addressing other FVM application issues;
- Analysts caveats and best practices related to the allocation of purchase price assignment.

These best practices are intended to assist CPAs to develop and report, to audit and challenge, and to retain and rely on FVMs – all in compliance with all relevant accounting and valuation professional standards.

About the Author: Robert F. Reilly, CPA, is a managing director of Willamette Management Associates. His practice includes business valuation, forensic analysis, and financial opinion services. Contact him at rfreilly@willamette.com.