Best Practices for Avoiding Common Errors in Fair Value Measurements

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Robert F. Reilly
Willamette Management Associates
Chicago, Illinois
(773) 399-4318
rfreiilly@willamette.com

Willamette Management Associates

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Discussion Outline

- Fair value measurement introductory comments
- Best practice for top 10 fair value measurement errors and omissions
- Best practices for other fair value measurement issues
- Appraiser caveats and best practices
- Summary and conclusion

Fair Value Measurement

Introductory Comments

Fair Value Definition

- The FASB ASC Topic 820 defines fair value as:
  - The price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date
- This fair value definition includes several considerations:
  - An orderly transaction
  - Market participants
  - The principal or the most advantageous market
  - An exit price
- ASC Topic 820 provides rules-based guidance with regard to:
  - Valuation principles and methodologies
  - Valuation techniques
  - A hierarchy of valuation inputs

When Do Fair Value Measurements Apply?

- The following ASC topics provide for fair value measurements:
  - 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 discussion focuses on fair value measurements with regard to ASC topic 805 business combinations

When Do Fair Market Value Valuations Apply?

- Fair market value (FMV) valuations apply for numerous non-financial accounting purposes, including:
  - Federal income tax compliance
  - Federal gift and estate tax compliance
  - Bankruptcy
  - Financings
  - Transaction structuring
  - Commercial contracts
  - Many types of commercial litigation
  - Other purposes

Differences between Fair Value Measurements and Fair Market Value Valuations

- A fair value measurements (FVM) is rules-based analyses, with the rules provided primarily by ASC 820
- FVMs apply in financial accounting compliance situations
- An FMV valuation is judgment-based analyses where an independent appraiser attempts to emulate a market transaction
- FMV valuations often apply in transactional situations

Discussion Definitions

For purposes of this discussion:

- Appraiser means any valuation specialist in any property appraisal discipline (including business, real estate, tangible personal property, and intangible personal property)
- Principal appraiser is the individual with overall responsibility for the allocation of purchase price (APP) FVM engagement team
- Best practices represent the general consensus regarding current valuation profession practices and procedures. The term “best practices” does not imply valuation professional standards or APP engagement requirements.

Best Practices for Top 10 Fair Value Measurement Errors and Omissions

Review the Transaction Documents

- As a best practice, review the stock purchase agreement or the asset purchase agreement.
- The APP should be consistent with the transaction documents—and the transaction intent:
  - Assets and liabilities included
  - Assets and liabilities excluded
  - Assets and liabilities emphasized
  - Asset and liability balances stated in the document
- The appraiser is valuing the acquired assets and liabilities within the context of a negotiated—and documented—transaction.

At-Market Contracts May Have Intangible Asset Value

- An FVM value is typically only assigned to an above-market contract intangible asset (IA).
- One procedure to value such an IA is to PV the above-market income over the contract remaining life.
- As a best practice procedure, consider that at-market customer (capacity) or supply contracts may also have an FVM value.
- One procedure to value such an at-market contract IA is to:
  - PV the at-market cash flow over the contract life at the target company's WACC
  - PV the at-market cash flow over the contract life at a lower discount rate (based on reduced risk to the target company)
  - Compare the two PV conclusions to estimate the FVM value

At Market Contracts Have Intangible Asset Value (cont.)

- This procedure recognizes that a long-term at-market supply contract or customer contract has a fair value (FV)—due to the reduced risk to the target company's business operations.

Value Liabilities—Not Just Assets

- ASC 805 calls for the FVM of both liabilities and assets.
- The fair value of liabilities—particularly long-term debt—may not be the same as the recorded book value.
- Any assumption that the long-term debt (LTD) book value equals its fair value should be disclosed—and supported.
- In addition to the FVM of recorded liabilities, the APP should consider the FVM of:
  - Contingent liabilities
  - Earn-out provisions
  - AROs
  - Other (non-LTD) liabilities
- As a best practice, the FVM of liabilities is an important component of any APP.

Apply the CEEM or MEEM at Least Once

- As a best practice, value at least one intangible asset through the application of either the:
  - Multiperiod excess earnings method (MEEM)
  - Capitalized excess earnings method (CEEM)
- This procedure—through its use of a contributory asset charge (or CAC) based on the acquired asset FVs—will ensure that the total of all asset FVs is not overstated.
- This procedure will identify—and help quantify—the need to apply economic obsolescence to any assets valued by the application of the cost approach.
- The CEEM may also be applied as a reasonableness test of the amount of goodwill measured by a residual calculation.

Apply the CEEM or MEEM at Least Once (cont.)

- The total FV of the appraised assets can be understated or overstated if all asset accounts are valued by application of cost approach, market approach, and (non-CEEM and non-MEEM) income approach valuation methods.
- Other IA income approach valuation methods do not function as a reasonableness test like the CEEM or the MEEM.

Economic Obsolescence Measurement

- Economic obsolescence (EO) should be consistently analyzed and (if it exists) applied to all assets appraised by application of the cost approach, including:
  - Tangible assets
  - Intangible assets
- The appraiser should clearly understand who in the engagement team is responsible for measuring EO:
  - The intangible asset valuation specialist?
  - The tangible asset valuation specialist?
- As a best practice, the decision of who should be responsible for measuring the EO amount (if any) should be clearly communicated throughout the engagement team.

Economic Obsolescence Measurement (cont.)

- Without that understanding, each valuation specialist may:
  - Assume the other specialist will measure EO
  - Measure any EO independently—and inconsistently
- Without that understanding, any assets valued by application of the cost approach may be:
  - Valued inconsistently
  - Overvalued

Useful Economic Life Assumption

- As a best practice, the appraiser should document and disclose all UEL assumptions related to:
  - Tangible assets
  - Intangible assets
- That disclosure should include the basis for (i.e., support for all UEL estimates.
- The appraiser should understand that average UEL is typically not the same as total UEL divided by 2.
  - This mathematical relationship impacts the FV of all assets — and particularly of all intangible assets—valued by application of the income approach.
  - For example, compare the FV of a customer relationship IA if the income is projected over the asset's average UEL—rather than down the income decay curve associated with the asset's total UEL.

Useful Economic Life Assumption—Example

- Assume the FVM of a customer relationships IA. Assume target company management informs the appraiser that management expects a 20% annual customer turnover rate—or a 5-year average UEL for the customer relationships.
- Assume the appraiser decides to apply the income approach and some type of DCF method analysis to value this IA.
- The appraiser can either:
  - Present value the customer-related NCF over the next 5-year period or
  - Present value the customer-related NCF decreasing at a 20% annual attribution rate.

Useful Economic Life Assumption—Example (cont.)

- Assume the current customers generate $100 NCF per year. The alternative income projections are:

Year	5-Year Average UEL Annual Income ($)	20% Annual Decay UEL Annual Income ($)
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

- The present values (FVMs) of these two customer-related NCF projections are materially different.

Ensure WACC = WARA = IRR

- As a best practice, the appraiser should test to ensure that these three rates are calculated and are approximately equal to each other:
  - The weighted average cost of capital (WACC) applied in the appraisal
  - The weighted average return on assets (WARA) implied by the net asset fair value conclusions
  - The deal internal rate of return (IRR) implied by the transaction purchase price
- This important procedure provides a reasonableness test on the WACC applied in all income approach valuation analyses.
- This important procedure provides a reasonableness test of the appraiser’s net asset FV conclusions.

Ensure WACC = WARA = IRR (cont.)

- This important procedure ensures that the appraiser understands the actual acquisition transaction, including:
  - The acquirer’s expected cash flow from the target company
  - The acquirer’s expected return on investment on the acquisition purchase price

Value Goodwill

- As a best practice, the appraiser should quantify the goodwill associated with the target company:
  - The appraiser may apply a CEEM (or other) analysis to value the target company goodwill
  - The appraiser may compare the quantified goodwill to the residual amount of goodwill measured in the APP
  - The two goodwill amounts should be reasonably close to each other
- This best practice provides a reasonableness test of the residual amount of goodwill:
  - This best practice indicates if the appraiser undervalued or overvalued the acquired net assets
  - This best practice tests whether the residual goodwill amount is sufficient to include an implied assembled workforce value

Value the Assembled Workforce

- It is a best practice to develop at least a preliminary assembled workforce valuation in each APP.
- The trained and assembled workforce (TAWF) value is not reported separately in an ASC 805 APP.
- However, the residual goodwill measurement should be sufficient to include the TAWF value.
- So, the calculated TAWF value allows a due diligence check on the residual goodwill measurement.
- And, a TAWF is a Section 197 intangible asset within the context of a federal income tax (FMV) APP.

Tax Amortization Benefit Adjustment – What?

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

Tax Amortization Benefit Adjustment – Why?

- Some intangible assts are valued as the present value (PV) of the NCF generated by the IA over its expected useful economic life (UEL).
- The NCF and the discount rate are typically developed on an after-tax basis.
- Typically, a marginal income tax rate is applied.
- If the IA 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 results in decreased income tax expense—but increased NCF (after the addition of the noncash amortization expense).

Tax Amortization Benefit Adjustment – Why? (cont.)

- Alternatively, the use of the marginal tax rate overstates the income tax expense associated with the income associated with the amortizable IA.
- The TAB is the PV of the income tax expense difference between the assumed marginal tax rate and the actual/effective (after amortization deduction) tax rate.
- That TAB increases the annual NCF over the Section 197 15-year amortization period—and thereby increases the IA income approach value.

Tax Amortization Benefit – When and When Not?

- It is a best practice to add the TAB adjustment to an IA value:
  - Related to a Section 197 IA
  - Developed by application of the income approach
  - Developed using after-tax valuation variables
  - Developed using a marginal income tax rate
  - Related to an assumed taxable asset transfer structure
- It is a best practice not to add the TAB adjustment to an IA value:
  - Related to an IA that is not a Section 197 IA
  - Developed by application of the cost approach or the market approach
  - Developed using pretax valuation variables
  - Developed using a reduced income tax rate
  - Related to an assumed nontaxable deal structure

Tax Amortization Benefit – How?

- One procedure is to:
  - Value the IA without consideration of the TAB in the discounted cash flow (DCF) analysis
  - Conclude that preliminary income approach value
  - Divide the preliminary value by 15 years
  - Subtract these annual amortization expense deductions from the IA income projection
  - Re-run the DCF analysis:
    - Subtract the annual amortization expense from pretax income
    - Apply the marginal income tax rate
    - Add the annual (non-cash) amortization expense to NCF
    - Present value the adjusted NCF
  - The revised DCF conclusion incorporates the TAB value

Tax Amortization Benefit – How? (cont.)

- Another procedure is to apply this formula:

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

Where:

- Income tax rate is the tax rate applied in the DCF analysis
- Amortization period is 15 years
- Present value annuity factor (PVAF) is based on the discount rate applied in the DCF analysis

Best Practices for Other Fair Value Measurement Issues

Excess Assets and Surplus Assets

- As a best practice, the appraiser should consider whether the target company owns either excess assets or surplus assets.
- First, the appraiser should understand the difference between excess assets and surplus assets.
- Second, the appraiser should appraise the excess assets and the surplus assets—using the appropriate appraisal approach and method.
- Third, the appraiser should include the FV of any excess assets or surplus assets in the APP.

Disclose Responsibility of the Principal Appraiser

- As a best practice, and as a professional standard, the APP valuation report certification should disclose:
  - What asset values the principal appraiser is responsible for
  - What asset values any other property valuation specialists are responsible for
- Without such a report certification limitation, the principal appraiser is responsible for all asset FVM conclusions.
- As a best practice, the principal appraiser may obtain written confirmation from the property valuation specialists with regard to these issues:
  - Their responsibility for specific asset FVM values
  - Their stated standard of value is consistent with the FV standard of value

Disclose Assumptions regarding Accounts Not Appraised

- It is a best practice to disclose and document all assumptions regarding any assets and liabilities not subject to valuation procedures.
- Appraisers sometimes assume that FV equals accounting book value with regard to:
  - Working capital accounts
  - Other assets/investments
  - Tax assets and liabilities
  - Regulatory assets and liabilities
  - Certain (non-debt) liabilities
- This assumption should be disclosed, explained, and supported.
- Is it credible to assume that no revaluation is required for these asset or liability accounts?

Compliance with VPO Professional Standards

- As a best practice, appraisers should be familiar with all valuation professional organization (VPO) appraisal standards that may apply to the APP valuation, including:
  - USPAP
  - IVSC
  - SSVS (AICPA)
  - Appraisal Institute
  - ASA
  - Other
- The APP valuation report should disclose which VPO standards the appraisal development and the appraisal report complied with.
- The principal appraiser should understand all VPO standards that may apply to the APP valuation.

Compliance with VPO Professional Standards (cont.)

- As a best practice, the principal appraiser should be aware of—and should comply with—the CEIV diligence and documentation professional standards; these CEIV best practices are documented in:
  - The *Mandatory Performance Framework*
  - The *Application of the Mandatory Performance Framework*

Document and Disclose Extraordinary Assumptions

- As a best practice, and as a professional standards requirement, the appraiser should document and disclose all assumptions related to the APP valuation analysis.
- In addition to appraiser assumptions, the appraisal report should disclose any material management representations, including:
  - Financial projections
  - Asset conditions
  - Asset replacements, renewals, retirements
  - Tangible asset and intangible asset UELs
  - Other
- The appraisal report reader should understand the basis for all material APP valuation analysis assumptions.

Fair Value Is a Market Participant Value

- FV is the value to a market participant—not necessarily the value to the actual buyer.
- The actual buyer often applies buyer-specific assumptions in the transaction pricing analysis, including:
  - Buyer-specific financial projections
  - Buyer-specific synergies and other consolidation benefits
  - Buyer-specific cost of capital considerations
  - Buyer-specific tax considerations
- The appraiser should understand all of the buyer's specific transaction pricing considerations.
- The appraiser should adjust (or normalize) all buyer-provided projections and other variables to eliminate any non-market participant assumptions from the FV valuation analyses.

Understand Property Appraisal Jargon and Procedures

- The principal appraiser should communicate directly with all property valuation specialists working on the APP.
- All property valuation specialists should 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 discount rate, expected growth rate, income tax rate
  - Understanding of the acquisition transaction and the transaction purchase price
- The principal appraiser should generally understand the tangible property appraisal approaches, methods, and procedures applied in the APP valuation.

Understand Property Appraisal Jargon and Procedures (cont.)

- The principal appraiser should be familiar with tangible property appraisal jargon; for example:
  - Land is not the same as site
  - Replacement cost new is not the same as reproduction cost new
  - Appraisal depreciation is not the same as accounting depreciation

Allocation of Purchase Price Report

- As a best practice, the APP report typically includes:
  - A list of all of the documents that the appraiser relied on
  - A list of all of the individuals that the appraiser interviewed
- In addition, the APP report typically includes (in an appendix) all of the important source documents relied on.
- All of the APP analyses and FVM conclusions presented in the report should be replicable.
  - The APP report should include sufficient data and explanation to allow another appraiser to replicate the valuation analyses and reach the FVM value conclusions.

Allocation of Purchase Price Report Value Conclusion

- As a best practice, the APP report should appropriately describe the appraiser's value conclusion.
  - Appraisers "estimate" fair values
  - Appraisers do not "determine" fair values
  - Market participants "determine" fair values

Accuracy and Precision

- As a best practice, the APP report should not imply a false level of precision.
  - Accuracy is not the same as precision
  - The APP report can be more accurate (meaning correct or credible) at a lower level of precision
- Appraisers should apply a consistent level of mathematical rounding (precision):
  - Within each valuation analysis
  - Within each method or value indication
  - For each asset or liability account
  - In any final value conclusion
- Appraisers should apply the “rule of significant digits” when adopting a rounding convention.

Allocation of Purchase Price Report Disclosures

- As a best practice, the APP report should clearly distinguish between:
  - Valuation variables based on empirical data
  - Valuation variables based on the appraiser’s analysis
  - Valuation variables based on assumptions
- The APP report may include language like the following:
  - The data indicates . . .
  - My analysis indicates . . .
  - I assume . . .

Consider Buyer and Seller Expectations

- As a best practice, the appraiser may conduct due diligence interviews of the buyer's transaction negotiators:
  - What did they think they were buying?
  - What assets and liabilities were important?
  - What (nonmarket) strategic factors were considered?
- As a best practice, the appraiser may conduct due diligence interviews of the seller's transaction negotiators:
  - What did they think they were selling?
  - What assets and liabilities were important?
  - What (nonmarket) strategic factors were considered?
- The APP should be generally consistent with the transaction participants' expectations.

Assets Should Be Valued as Part of the Acquired Entity

- Asset FVMs should be market participant values.
- Asset FVMs should be an "exit price."
- But, asset FVM values typically should not be stand-alone values.
- The buyer purchased all of the acquired assets as part of one going-concern entity.
- The buyer will "exit" the acquired business by selling one going-concern entity.

Assets Should Be Valued as Part of the Acquired Entity (cont.)

- The APP valuation should incorporate consistent valuation variables in the component asset appraisals; for example:
  - Discount rates
  - Capitalization rates
  - Growth rates
  - Income tax rates
  - EO adjustments
  - Other variables
- All property valuation specialists typically should appraise all of the acquired assts as part of one going-concern business entity.

Goodwill Is a Measurement—Not a Valuation

- It is a best practice to refer to the residual goodwill calculation as a measurement.
- Appraisers "value" working capital accounts, real estate and tangible personal property, identifiable intangible assets, and liabilities.
- But appraisers "measure" goodwill.
- This jargon is consistent with ASC topic 805, the *Mandatory Performance Framework*, and other best practices.
- This jargon discloses an important distinction to the APP report reader.

Transaction Price Is Not Always FV

- As a best practice, the appraiser should determine whether the actual transaction purchase price is equal to the target company FV.
- The purchase price is often greater than the target's FV:
  - The buyer may include buyer-specific considerations in the transaction pricing analysis
  - The buyer may overpay due to emotion or competitive bidding
- The purchase price may be less than the target's FV:
  - The appraiser should check to see if the transaction is a bargain purchase
  - The seller may have wanted to close a transaction quickly or privately
- The appraiser should consider the FV of the target company when analyzing the FV of the target company acquired assets.

Appraiser Caveats and Best Practices

Have Someone Check Your Work

- As a best practice, have a trusted colleague review all of the APP valuation work.
  - All valuation judgments
  - All valuation variables selected (and rejected)
  - All math calculations
  - All narrative APP report sections
  - Consistency of the report exhibits to the report narrative
  - Reasonableness of the FVM value conclusions
- Have a trusted colleague check for compliance with all VPO professional standards.
- The trusted colleague should be technically competent to perform this professional standards review.

Don’t Misrepresent Your Work Product

- If you are advising the acquirer company management, then you are performing an advisory service.
- You are not performing an independent valuation or appraisal.
- The acquirer company management needs to understand what the appraiser is responsible for—and what company management is responsible for.
- The APP report reader needs to understand what the appraiser is responsible for—and what (non-valuation-specialist) company management is responsible for.

If You Won’t Support Your Analysis

- If you won’t support your APP valuation analysis, don’t perform the APP.
- Some accounting firms perform valuation advisory services to assist the acquirer company client with management’s purchase price allocation.
- These firms may not be willing to support their APP valuations—through expert testimony—when the APP valuations are challenged:
  - By the SEC
  - By dissenting minority shareholders
  - By financial institutions
  - In claims of accounting fraud and misrepresentation
  - In an IRS audit

If You Won’t Support Your Analysis (cont.)

- If the appraiser is not willing to support the APP valuation analyses and conclusions through expert testimony, then the appraiser may not be providing a useful client service.

If You Don't Know What You Are Doing

- If the appraiser does not know how to develop all aspects of the APP, then the appraiser should not perform the analysis.
  - Don't read a book
  - Don't rely on the last APP valuation report
  - Each APP is unique
  - Each APP requires specialized skills
- An APP valuation is not a business valuation. It is a property appraisal.
- The APP valuation requires a unique combination of the following skill sets: financial accounting, income tax accounting, financial analysis, and property appraisal.

Summary and Conclusion

- When fair value measurements apply
- FVM valuations—and differences to FMV valuations
- Best practices for top 10 FVM errors and omissions
- Best practices for other FVM application issues
- FVM appraiser caveats and best practices

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