Willamette Management Associates

Insights

Issue 117

Autumn 2018

Business Valuation, Forensic Analysis, and Financial Opinion Insights

Thought Leadership in Valuation for Fair Value Measurement Purposes

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Insights

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We welcome reader comments, suggestions, and questions. We welcome reader recommendations with regard to thought leadership topics for future *Insights* issues. In particular, we welcome unsolicited manuscripts from legal counsel, accountants, bankers, and other thought leaders involved in the valuation and forensic services community. Please address your comments or suggestions to the editor.

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Thought Leadership in Valuation for Fair Value Measurement Purposes
Editor for This Issue: Terry G. Whitehead, CPA

Fair Value Reporting Thought Leadership

Fair Value Measurement Thought Leadership

Valuation Professional Credentials Thought Leadership

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Forethoughts

This *Insights* issue focuses on fair value measurement valuation issues. In particular, this issue concentrates on regulatory concerns and the increasing demand for transparency with regard to fair value measurement for financial accounting purposes. Recent accounting updates and the creation of a valuation credential related to intangible asset fair value measurement reflect the valuation profession's response to the public concern regarding this practice area.

First, this *Insights* issue addresses several aspects of fair value measurement. Contingent consideration represents an increasingly significant portion of the purchase price in many merger and acquisition transactions. Bargain purchase transactions may be a red flag for potential asset over-valuations and may result in scrutiny by the Securities and Exchange Commission.

This *Insights* issue addresses other fair value measurement topics. The concept of a market participant acquisition premium was addressed by the Appraisal Foundation in a 2017 Financial Reporting Valuation Advisory intended to set forth best practices regarding the fair value measurement of controlling interests. Additional fair value measurement topics in this *Insights* issue include share-based payment awards.

Finally, this *Insights* issue recognizes and discusses the current landscape of two valuation professional credentials. The Certified in Entity and Intangible Valuations (CEIV) is a new credential intended to identify analysts who have achieved and maintain a rigorous set of standards and performance guidelines in the area of fair value measurement. Additionally, the AICPA has decided to open its Accredited in Business Valuation (ABV) credential to non-CPA professionals, a decision that has created controversy within the accounting and valuation professions.

Willamette Management Associates analysts have extensive experience providing a wide variety of valuation-related services and routinely perform the following analyses: (1) fair value measurements, (2) purchase price allocation valuations related to business combinations, (3) goodwill and intangible asset impairment valuations, (4) intangible asset valuations, and (5) analyses of valuation discounts and premiums. Our analysts hold such professional credentials as: certified public accountant (CPA), accredited in business valuation (ABV), certified in entity and intangible valuations (CEIV), chartered financial analyst (CFA), and accredited senior appraiser (ASA).

About the Editor

Terry G. Whitehead

Terry Whitehead is the director of our Portland, Oregon, office and leads our income tax planning and compliance services practice. Terry has more than 20 years of experience in the valuation of business entities and business interests. During his career, Terry has routinely performed business valuation and financial consulting services including: (1) acquisition fair value measurement purchase price allocations, (2) goodwill and long-lived asset fair value impairment testing, (3) intangible asset valuations, (4) transaction opinions, and (5) merger equity allocation analyses.

In addition to the above services, Terry's practice includes the following types of valuation assignments: estate and gift tax valuations, dissenting shareholder appraisal rights and shareholder oppression fair value stock valuations, fairness opinions, ESOP employer stock valuations and transaction fairness valuations, stock option valuations, and lost profits/economic damages analyses.

Terry received a bachelor of science degree in business administration, with an emphasis in accounting, from Warner Pacific College. Terry is a certified public accountant ("CPA") in the state of Oregon. He earned the accredited senior appraiser ("ASA") designation from the American Society of Appraisers. And, he is a member of the National Center for Employee Ownership ("NCEO").

Prior to his business valuation career, Terry practiced as a CPA for a public accounting firm in Portland, Oregon. He also served as the director of valuation services for a regional public accounting firm in San Antonio, Texas, where he led that firm's business valuation and litigation support services practice.

Terry's background and experience in both accounting and business valuation provide an extensive knowledge base to draw upon when assisting clients on engagements concerning fair value measurements for financial accounting purposes.

Thought Leadership Discussion

The Valuation and Reporting of Contingent Consideration in Business Combinations

Charles A. Wilhoite, CPA, and Lisa H. Tran

Various forms of contingent consideration may be included in the pricing of merger and acquisition transactions. The contingent consideration structure often bridges the gap between the buyer's and the seller's expectation of the target company value in the transaction negotiation process. Due to the increasingly complex structure of such contingent consideration arrangements, it may be necessary for the corporate acquirer to retain a valuation analyst to estimate the fair value of the transaction contingent consideration for GAAP accounting compliance purposes.

Introduction

Contingent consideration is frequently incorporated in the price structures of merger and acquisition ("M&A") transactions. Between 2014 and 2017, the percentage of completed private company acquisitions (non-life-science industry deals) that included contingent consideration ranged from 14 percent (2015) to 23 percent (2017).

Further, contractual earnout provisions (discussed below) were a more common form of contingent consideration for life science industry deals than for non-life-science industry deals. For example, during a recent period, 75 percent of biopharmaceutical acquisitions incorporated earnout provisions.[1]

The Financial Accounting Standards Boards ("FASB") issued Accounting Standards Codification ("ASC") topic 805—Business Combinations. At the acquisition closing date, ASC topic 805 requires an acquiring company (the "acquirer") to report the contingent consideration transferred at fair value as part of the purchase price in an M&A transaction. ASC topic 805 became effective on December 15, 2008.

Before the implementation of ASC topic 805, the amount of any contingent consideration in an M&A transaction was not recognized as part of the transaction purchase price until it was paid.

The analysis and valuation of contingent consideration can be a challenging task for several reasons.

First, the analysis and valuation of contingent consideration essentially requires the valuation analyst ("analyst") to forecast, with some level of confidence, the occurrence of a future event. That future event may be the ability of the acquired company (the "target company") to achieve a targeted performance level or financial goal.

Second, there is limited authoritative guidance available regarding the analysis and valuation of contingent consideration.

Third, the structure of the contingent consideration is often unique to each transaction. Therefore, it may be difficult for the analyst to find transactions involving comparable assets or liabilities.

This discussion addresses the following topics:

1. Several common forms of contingent consideration
2. Guidance provided by professional, standards-setting organizations regarding the financial accounting for contingent consideration
3. Two common methods for the fair value measurement of contingent consideration

Due to the complex structure of contingent consideration arrangements, it is often helpful for an acquirer to rely on an analyst's expertise to estimate the fair value of the contingent consideration. The support of a qualified analyst when analyzing contingent consideration typically facilitates compliance with financial accounting requirements, thereby promoting a more efficient and effective process when auditors examine the accounting for contingent consideration.

Types and Payment of Contingent Consideration Structures

Some of the common forms of contingent consideration include the following:

1. Purchase price adjustments
2. Earnouts
3. Holdbacks

Payment structures typically applied in contingent consideration circumstances can be simple or very complex. The common forms of contingent consideration, and various payment structures, are discussed in the following sections.

Purchase Price Adjustments

One common form of contingent consideration is a post-closing adjustment made to the purchase price established at the acquisition closing date. The adjustment is based on the target company balance sheet—more specifically, the target company net working capital balance—as of the acquisition closing date.

The closing balance sheet—including the net working capital position—is prepared in conformity with U.S. generally accepted accounting principles ("GAAP"). If the target company's net working capital balance as of the closing date is above the agreed upon level established in the purchase agreement, the acquirer will pay the target company the difference. If the closing date net working capital balance is below the agreed upon level, the purchase price will be reduced by the difference.

Earnouts

Contractual earnout provisions are a popular form of contingent consideration, typically used in private, middle market M&A transactions. The portion of the purchase price attributable to a contractual earnout provision is deferred and contingent on the target company achieving agreed upon, expected performance goals or milestones (i.e., the metric) over a specified period (i.e., the earnout period).

According to the SRS Acquiom study,[1] the median earnout period for non-life-science deals that closed in 2017 was 13 months, and 50 percent of the earnouts had a time frame of one year or less.

Typical earnout measurement metrics include the following:

1. Financial metrics (e.g., revenue; earnings before taxes, depreciation, and amortization ("EBITDA"); or net income)
2. Nonfinancial metrics (e.g., number of units sold or rental occupancy rates)
3. Nonfinancial milestone events (e.g., regulatory approvals, resolutions of legal disputes, or achievement of technical milestones)

The selection of the earnout measurement metric used in a contingent consideration arrangement will help the analyst to (1) evaluate the risk associated with realizing the related cash flow and (2) estimate a relevant, risk-adjusted rate to discount the cash flow.

M&A transaction contractual earnout provisions are popular for several reasons.

First, earnout provisions help close the gap between the buyer's and the seller's expectations regarding the target company value and may facilitate the completion of an M&A transaction.

The buyer may be more willing to offer a higher price for a business if the seller is willing to make a portion of the price contingent on the target company ability to achieve certain milestones after the acquisition date. The seller would be more willing to accept a lower guaranteed, or base, price if it is confident that the target company can achieve the performance goals, thereby realizing the contingent consideration and higher total price.

Second, earnout provisions can enable the buyer to mitigate the risk of overpaying for a target company by making some portion of the payment contingent on the occurrence of a future event that may not materialize. Meanwhile, earnout provisions also allow the seller to participate in the potential financial rewards attributed to business growth and related achievements realized after the transaction closing.

Third, the acquirer company can use an earnout provision as an incentive to retain and motivate the target company key employees. Aspects of an earnout can include offering financial rewards to key employees that are tied to the realization of measurable objectives designed to enhance the target company value after the acquisition closes.

Holdbacks

A holdback is a certain portion of the purchase price (typically 5 percent to 10 percent) held in escrow. The holdback indemnifies the acquirer for losses caused by any breach of the representations and warranties regarding the acquired business or the covenants regarding the business operations.

If the acquirer makes a claim for indemnification related to breach of contract, all, or a portion, of the funds held in escrow will be used to satisfy a legitimate claim. If the funds held in escrow are not used, the balance will be paid to the seller after the escrow period ends—typically after 12 months to 18 months.

Payment Structures

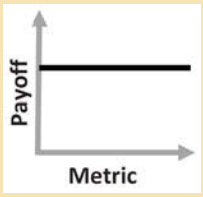
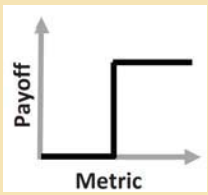
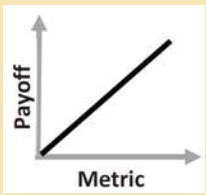
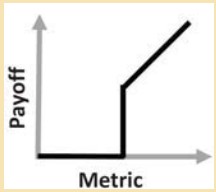
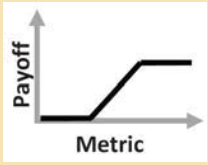
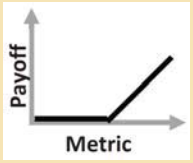
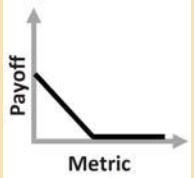
The payment structure for the contingent consideration arrangement can be as simple as a fixed percentage of an underlying metric (i.e., a linear structure). Conversely, the payment structure can be established in a complex manner that is nonlinear and incorporates a maximum cap on payment and multiple tiers of different payments depending on the goals achieved.

Exhibit 1 presents examples of several contingent consideration payment structures. The payment structures, depicted graphically in Exhibit 1, are presented to provide a conceptual basis for understanding the types, potential returns, and risks inherent in the identified models.

Valuation and Reporting of Contingent Consideration

The FASB issued ASC topic 805 to provide guidance on the financial accounting related to business combination transactions. ASC topic 805 defines contingent consideration as "usually an obligation of the acquirer to transfer additional assets or equity interests to the former owners of an acquiree as part of the exchange for control of the acquiree if specified

Exhibit 1
Examples of Contingent Consideration Payment Structures

Structure	Payoff	Description and Risk Characteristics
Constant (debt-like)		• A fixed (deferred) payment • The cash flow is only subject to counterparty credit risk
Milestone (binary) Payment		• A fixed payment contingent upon achieving a future milestone or performance threshold • Nonlinear payoff, where not only the expected payoff but also (if the metric is nondiversifiable) the appropriate discount rate may depend on the probability of achieving the milestone or performance threshold
Linear		• Payment is equal to a fixed percentage of the outcome for the underlying metric • Linear payoff, where the risk of the earnout cash flow is the same as the risk of the underlying metric, plus counterparty credit risk
Percentage of Total above a Threshold (asset-or-nothing call)		• Payment is equal to a percentage of the underlying metric, but only if a performance threshold is reached • Nonlinear payoff, where the risk of the earnout cash flow depends on the risk of the underlying metric, the impact of the nonlinear structure, and counterparty credit risk
Threshold and Cap (capped call)		• Payment is equal to a percentage of the excess of the underlying metric above a performance threshold, with a payment cap • Nonlinear payoff, where the risk of the earnout cash flow depends on the risk of the underlying metric, the impact of the nonlinear structure, and counterparty credit risk
Excess above a Threshold (call option)		• Payment is equal to a percentage of the excess of the underlying metric above a performance threshold • Nonlinear payoff, where the risk of the earnout cash flow depends on the risk of the underlying metric, the impact of the nonlinear structure, and counterparty credit risk
Clawback (put option)		• Payment is equal to a percentage of the shortfall of the underlying metric below a performance threshold • Nonlinear payoff, where the risk of the clawback cash flow depends on the risk of the underlying metric, the impact of the nonlinear structure, and counterparty credit risk

Source: *Valuation of Contingent Consideration*, First Exposure Draft (Washington, DC: The Appraisal Foundation, February 28, 2017).

future events occur or conditions are met. However, contingent consideration also may give the acquirer the right to the return of previously transferred consideration if specified conditions are met."[2]

In particular, ASC topics 805-30-25-5 through 805-30-25-7 state that the contingent consideration transferred as part of the purchase price should be recognized at fair value at the acquisition closing date. The acquirer should report an obligation to pay contingent consideration as a liability or as equity in accordance with subtopics 480-10 and 815-40 or other applicable GAAP. The acquirer should report the contingent consideration as an asset when it represents the right to the return of previously transferred consideration if specified conditions are not met.

For GAAP financial accounting purposes, a contingent consideration arrangement whereby the buyer pays the seller cash or assets is typically recorded as a liability. In contrast, payment in the form of the acquirer's stock may be recorded as a liability or equity, depending on the structure of the arrangement. Similarly, a contingent consideration arrangement whereby the seller pays the buyer in cash or assets generally is reported as an asset.

Since there has been limited guidance on the valuation of contingent consideration for financial accounting purposes, the Appraisal Foundation Valuation in Financial Reporting Working Group 4 issued its first exposure draft of *Valuation of Contingent Consideration* for comments from the public (the "*Exposure Draft*") on February 28, 2017.

The purpose of the *Exposure Draft* was to provide best practices for valuing contingent consideration. The *Exposure Draft* is not intended to provide specific guidance on accounting for contingent consideration. The best practices discussed in the *Exposure Draft* were developed based on GAAP and International Financial Reporting Standards.

The three generally accepted valuation approaches to estimate the fair value of an asset or liability are as follows:

1. The income approach
2. The market approach
3. The cost approach

The income approach includes valuation methods that estimate the value of an asset or liability by discounting future cash flow to present value using a relevant risk-adjusted discount rate. Because the income approach is based on the consideration of expected returns, it is typically relied on to value contingent consideration.

Market-based valuation methods are based on the concept that the prices, and underlying relevant information, of market transactions involving comparable assets or liabilities can be relied on to estimate value. Due to the absence of an active trading market for contingent consideration, the market approach typically is not relied on to value contingent consideration.

The cost approach is based on the principle that the current cost required to replace an asset, with an adjustment for obsolescence, represents a reasonable estimate of the value of the asset. Because the cost approach does not consider the expected financial returns of an asset, and because there is no process for estimating the replacement cost of a contingent arrangement, the cost approach typically is not relied on to value contingent consideration.

The *Exposure Draft* identifies two commonly used methods to value contingent consideration: (1) the scenario-based method and (2) the option pricing method (both income approach methods).

The *Exposure Draft* states that no single method for valuing contingent consideration is superior to another because each method contains strengths and weaknesses relating to the facts and circumstances in a particular circumstance.

Scenario-Based Method

In the scenario-based method (e.g., the probability weighted method), the analyst (1) identifies multiple scenarios and (2) assigns a probability to the outcome from each scenario to arrive at an expected cash flow payment. Then, the expected cash flow is discounted at an appropriate risk-adjusted discount rate.

According to the *Exposure Draft*, the scenario-based method ("SBM") is appropriate for valuing contingent consideration when the selected metrics (1) have a linear payoff structure or (2) are nonfinancial, which are generally not exposed to market risk (i.e., unsystematic or diversifiable risk).

As presented in Exhibit 1, in a linear payout structure, the contingent payment is equal to a fixed percentage of the outcome of the selected metric.

The advantages of the SBM are its simplicity and transparency, making it useful for valuing contingent consideration with a linear payout structure or unsystematic risk. However, the *Exposure Draft* does not recommend the SBM for valuing contingent consideration with a nonlinear

earnout structure and risks that are nondiversifiable or exposed to market risks.

Exhibit 2 presents an illustrative example of the application of the SBM to estimate the value of contingent consideration with a linear payout structure.

As part of the transaction price, Company X will pay 30 percent of the Target Company EBITDA generated over a one-year period after the closing date. Company X will make the payment three months after the end of the one-year period.

Target Company management provided projected EBITDA for three scenarios: (1) low, (2) base, and (3) optimistic, with estimated probabilities of achieving each scenario.

The discount rate applicable to the future EBITDA is 10 percent, the risk-free rate is 0.5 percent, and the counterparty (i.e., Company X) risk is 3 percent. If the contingent consideration is paid in cash from the buyer, it is exposed to the counterparty credit risk (default risk) of the buyer.

The discount rate considers the Target Company historical EBITDA trend as well as general economic and industry trends and expected growth. The risk-free rate considers the short term (i.e., approximately 12 months) associated with the earnout period. The counterparty risk considers the Company X financial circumstances, including financial leverage and cost of debt, and financial operating history, as well as market-based costs of debt and equity for similarly situated companies.

Based on the SBM, the present value of the expected payout is $572,000, using a midyear discounting factor. After accounting for the risk of Company X (i.e., 3% + 0.5% = 3.5%) discounted over 1.25 years, the fair value of the contingent payment is estimated at $548,000.

Option Pricing Method

The payoff functions for contingent consideration arrangements that have a nonlinear structure are similar to those of options in that payments are triggered when certain thresholds are met. Accordingly, the option pricing method ("OPM") may be appropriate for valuing continent consideration that has a nonlinear payoff structure and is based on metrics that are financial in nature (or, more generally, for which the underlying risk is systematic or nondiversifiable).[3]

To account for the systematic risk, the OPM requires the estimation of an appropriate risk-adjusted discount rate to apply to the selected metric.

The OPM is implemented by modeling the underlying metrics based on a lognormal distribution that requires two parameters:

1. The expected value
2. The volatility (standard deviation) of the metric

Management typically provides a projection for the OPM metric(s). The OPM is used to value financial instruments with nonlinear payout structures. However, the OPM can be difficult to understand because it relies on complex mathematics.

Exhibit 3 presents an illustrative example of the application of the OPM to estimate the value of a contingent consideration.

As part of the transaction price, Company X will pay 30 percent of the Target Company EBITDA generated over a one-year period after the closing date.

Exhibit 2
Example of the Scenario-Based Method

Scenario	EBITDA $000	Earnout Payoff (30%) $000	Estimated Probability	Probability Weighted Earnout $000	Present Value of Probability Weighted Earnout $000	Present Value Factor
Low	1,000	300	25%	75	72	0.9535
Base	2,000	600	50%	300	286	0.9535
Optimistic	3,000	900	25%	225	215	0.9535
Total			100%	600	572	
Fair Value after Counterparty Credit Risk					$ 548	0.9579

Note: Based on examples provided in the *Exposure Draft;* totals may be off due to rounding.

Company X will make the payment three months after the end of the one-year period. The projected annual EBITDA is $20 million, expected volatility is 50 percent, discount rate is 10 percent, risk-free rate is 0.5 percent, and credit risk of Company X is 3 percent.

Based on the OPM, the present value of the expected payout is $689,000. After accounting for the risk of Company X (i.e., 3% + 0.5% = 3.5%) discounted over 1.25 years, the fair value of the contingent payment is estimated at $660,000.

Exhibit 3
Example of the Option Pricing Method

Current Stock Price (expected present value of EBITDA)	$ 19,026,000
Exercise Price (forecasted EBITDA)	$ 20,000,000
Time to Expiration (years)–Use Midyear Convention	0.50
Volatility of Stock (standard deviation)	50%
Risk-Free Rate (for time T)	0.5%
Cumulative Normal Distribution (D_1) =	0.0426
Cumulative Normal Distribution (D2) =	(0.3109)
Option Value - Call Option	$ 2,296,760
30% × Call Option Value	$ 689,028
Discount Factor (credit risk of Company X and time value)	0.9579
Fair Value of the Earnout	$ 660,027
Fair Value of the Earnout (rounded)	$ 660,000

Note: Based on examples provided in the *Exposure Draft* .

Contingent Consideration Financial Reporting

Pursuant to ASC topic 805, contingent consideration is measured as a component of the purchase price at fair value at the closing date. At subsequent financial reporting dates, contingent consideration, typically recognized as a liability, is remeasured in accordance with GAAP. The increase (or decrease) in the fair value of the liability is recognized by the acquirer as a decrease (or increase) in its earnings.

The following discussion provides an illustrative example of how Terra Tech Corp. ("Terra Tech") reported the contingent liability related to its acquisition of Black Oak.

Let's assume that Terra Tech is a retail, production, and cultivation company providing medical-use and adult-use cannabis products. Black Oak operates a medical marijuana dispensary and cultivation facility in Oakland, California.

On April 1, 2016, Terra Tech acquired Black Oak for an estimated price of $51.5 million. Included in the purchase price is a performance-based contingent cash consideration of up to $2.088 million to be paid at the one-year anniversary date of the merger agreement.

Also included in the purchase price were (1) a holdback consideration and (2) a lockup consideration in the form of stock valued at $11.3 million and $29.1 million, respectively.

The holdback consideration and lockup consideration were to be held in escrow accounts for a period of one-year to satisfy any post-closing adjustments or indemnification claims.

Terra Tech used a cash flow model to estimate the expected contingent consideration payment, valuing the liability at $15.3 million. The present value of the contingent liability was estimated at $12.8 million, which Terra Tech recognized on April 1, 2016, when the merger closed.

On December 31, 2016, the contingent liability related to the Black Oak merger was revalued. The present value of the contingent consideration was estimated at $12.1 million, which was reported as a liability on the December 31, 2016, balance sheet. This amount represented a decrease of $668,694 from $12.8 million, which was recorded on the Terra Tech 2016 income statement and cash flow statement as a gain.

The fair value of the Black Oak contingent liability was revalued in June and September 2016, and any related changes in fair value were reported as a net change in goodwill. The total change in fair value was recorded in the Terra Tech income statement at December 31, 2016.

The settlement date of the Black Oak contingent consideration was April 1, 2017. At December 31,

2017, the fair value of the contingent consideration had increased by $4.4 million to $16.5 million. Terra Tech recorded the increase in fair value as a loss on its 2017 income statement and cash flow statement. The earnout of $2.088 million was paid to the seller and reported as a cash outflow in the financing activity category.

Pursuant to the merger agreement with Black Oak, Terra Tech stock, with a fair value of $4.7 million, was released from escrow to the sellers, which was reported in the cash flow statement under noncash, investing and financing activities.

Terra Tech common stock with a fair value of $9.7 million was clawed-back pursuant to disputes between Black Oak and Terra Tech relating to certain operational and performance goals.

To account for the claw-back (i.e., refund), Terra Tech recognized a gain on settlement of contingent consideration of $5.0 million in its 2017 income statement and cash flow statement. The balance ($9.7 million – $5.0 million = $4.7 million) was recognized in the cash flow statement under noncash, investing and financing activities.

Exhibit 4 illustrates how Terra Tech reported the contingent consideration in its financial statements when the liability was paid after the settlement date.

As presented in Exhibit 4, the fair value of the contingent consideration reported on an acquirer's balance sheet will be adjusted during the recognition period, and ultimately will be eliminated (i.e., reduced to zero) at the end of the applicable recognition period.

Conclusion

The use of contingent consideration in an M&A pricing structure often enables the seller and the buyer to execute the pending transaction. However, the structure of contingent consideration can vary in complexity, and there is a diversity of practice for analyzing and valuing contingent consideration.

Therefore, it may be helpful for an acquirer company to rely on the expertise of an experienced analyst who can address the complexity and issues typically associated with analyzing and valuing contingent consideration.

Notes:

1. "2018 M&A Deal Terms Study," SRS Acquiom, Inc. (May 2018).
2. ASC 805, *Business Combinations* (805-10-20 Glossary).
3. *Valuation of Contingent Consideration*, First Exposure Draft (Washington, DC: The Appraisal Foundation, February 28, 2017): 52.

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Exhibit 4
Financial Accounting for Contingent Consideration
Terra Tech Corp. Acquisition of Black Oak

	Amount	Statement Affected
Contingent Consideration Balance (12/31/16)	**$12,085,859**	Balance Sheet
Increase in Fair Value of Contingent Consideration	4,426,047	Income and Cash Flow
Performance-Based Contingent Cash Consideration	(2,088,000)	Cash Flow
Settlement of Contingent Consideration (stock)	(4,739,638)	Cash Flow
Settlement of Contingent Consideration Recorded in Paid-In Capital	(4,692,697)	Cash Flow
Gain on Settlement of Contingent Consideration	(4,991,571)	Income and Cash Flow
Contingent Consideration Balance (12/31/17)	**$ 0**	Balance Sheet

Source: Terra Tech Corp. SEC Form 10-K/A for fiscal year December 31, 2017.

Willamette Management Associates

Thought Leadership in
Forensic Analysis and Expert Testimony Services

Lost Profits/ Economic Damages and Valuation Controversy Services

Commercial litigation

- lender liability, breach of contract, fraud and misrepresentation, tortious interference with business opportunity, and similar claims

Intellectual property litigation

- infringement, breach of contract, breach of nondisclosure agreement, breach of joint venture, and similar claims

Business value litigation controversy

- shareholder oppression and dissenting shareholder rights, family law, gift/estate/income tax, condemnation and eminent domain, breach of contract/noncompete/buy-sell agreement, and similar claims

Bankruptcy and insolvency controversy

- solvency/insolvency issues, fraudulent conveyance/preference items, collateral value, voting/liquidation preference, reasonableness of the plan of reorganization

Tax Valuation Controversy Services

Property tax controversy

- taxpayer business (unit value) and intangible asset valuations
- capitalization rate analysis and special purpose property obsolescence analysis

Gift and estate tax controversy

- business enterprise, security, fractional interest, and intangible asset valuations

Income tax controversy

- business enterprise, fractional interest, and intangible asset valuations
- charitable contribution, purchase price allocation, partnership basis, insolvency, change of control, worthless stock, intercompany transfers

Financial Opinion Controversy Services

ESOP formation and other employer stock transactions

- ESOP sponsor company annual stock valuations
- ESOP/ERISA transaction fairness financial adviser expert testimony

Capital market transaction controversy

- fraud and misrepresentation in merger, acquisition, and going private transactions
- fairness, solvency and adequate consideration

Not-for-profit entity transaction

- business/professional practice purchase or sale price, goods or services contracts, and reasonableness of professional/executive compensation
- fairness, fair market value valuation, private inurement, excess benefit, intermediate sanctions, and reasonableness of compensation opinions

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Overview of Fair Value Considerations in Business Combinations and Bargain Purchase Transactions

John C. Kirkland and F. Dean Driskell III, CPA

This discussion summarizes the fair value measurement guidance and financial accounting considerations in business combinations—and specifically in bargain purchase transactions. This discussion describes the principles of acquisition accounting as they relate to fair value measurement. And, this discussion describes many of the valuation analyst considerations with regard to the fair value measurement for a bargain purchase transaction.

Introduction

So, is the old saying true that "everyone loves a bargain?" In business combinations, buyers look for a "bargain" while sellers attempt to negotiate the highest possible price. Although true bargains exist in the marketplace, each party in a transaction is generally unwilling to consider a price that varies significantly from its individual perceived value of the transferred assets or business.

For financial reporting purposes, the business combination purchase price is compared to the estimated *fair value* of net assets acquired. According to the Financial Accounting Standards Board ("FASB") Accounting Standards Codification ("ASC") topic 820, fair value is defined 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."

In certain business combination transactions, the buyer may pay something greater than the fair value of the assets acquired due to synergies and a host of other reasons. In other business combination transactions, the buyer may (1) pay less than the estimated fair value and (2) be considered to have consummated a bargain purchase.

Bargain purchases in business combinations may require additional considerations for both financial accounting and valuation professionals.

This discussion outlines the financial accounting, fair value measurement, and valuation analysis considerations related to business combinations involving bargain purchases. Additionally, this discussion considers the Security and Exchange Commission's ("SEC") scrutiny of fair value measurement valuations.

Financial Accounting Overview

The FASB ASC topic 805 ("ASC topic 805") provides guidance on the financial accounting considerations for business combinations accounted for under the acquisition method.

To comply with U.S. generally accepted accounting principles ("GAAP"), the business combination buyer will record the transaction using the acquisition method and measure the following:

1. Tangible assets and liabilities that were acquired
2. Intangible assets that were acquired

3. Amount of any noncontrolling interest in the acquired business
4. Amount of consideration paid
5. Any goodwill or gain on the transaction

Applying the appropriate valuation approaches and methods, the purchase price is allocated between:

1. identifiable tangible assets and identifiable intangible assets and
2. purchased goodwill.

However, if the fair value of the identifiable net assets exceeds the business combination purchase price, a *bargain purchase* is deemed to have occurred under the rules of ASC topic 805.

The FASB defines a bargain purchase as "a business combination where the acquisition date amounts of identifiable net assets acquired, excluding goodwill, exceed the sum of the value of consideration transferred."

The net effect of such a transaction is, essentially, negative goodwill. In the event of a bargain purchase, the purchaser is required under GAAP to recognize a gain for financial accounting purposes. The effect of this gain is an immediate increase to net income.

A reasonable person may question the frequency or volume of bargain purchases. After all, businesses along with savvy owners and boards of directors do not often willingly sell assets below fair value. In fact, the FASB and the International Accounting Standards Board consider bargain purchases to be anomalous transactions. Still, these transactions do occur on occasion.

One notable bargain purchase was the acquisition of Lehman Brothers by the United Kingdom bank Barclays in late 2008, resulting in a negative goodwill gain for Barclays of £2.26 billion (approximately $4.1 billion U.S.) (i.e., the £3.14 billion difference between the assets and liabilities acquired minus the acquisition cost of £874 million).[1]

There were likely hundreds of other such transactions in the aftermath of the 2008 market crash and the subsequent Great Recession. Other potential causes of bargain purchases include liquidations, distressed sales, and non-arm's-length transactions.

In addition to the previous example, we know that bargain purchase issues continue to occur. In August 2017, the SEC issued an order instituting public administrative and cease and desist proceedings against a Big 4 accounting firm and one of its partners involving, in part, bargain purchase issues.

Of the numerous violations, perhaps the most relevant to the topic of bargain purchases was *failure to properly test fair value measurements and disclosures and using the work of a specialist*. The accounting firm and the audit partner were ultimately fined more than $6 million.[2]

Accounting Guidance on Business Combinations and Fair Value Measurement

GAAP requires that business combinations with an acquisition date on or after the beginning of the first annual reporting period beginning on or after December 15, 2008 (December 15, 2009, for acquisitions by not-for-profit entities), account for the transaction under ASC topic 805, which focuses on the following areas:

1. Provides broad definitions of business and business combinations (The FASB issued new guidance, ASU 2017-01, *Business Combinations* (Topic 815): *Clarifying the Definition of a Business*, in January 2017 that amends the previous definition of a business)
2. Requires the use of the acquisition method
3. Recognizes assets acquired and liabilities assumed at fair value as defined in ASC 820—Fair Value Measurement

First, a business is defined in ASU 2017-01 as "an integrated set of activities and assets that is capable of being conducted and managed for the purpose of providing a return." A business combination is defined as, "a transaction or other event in which an acquirer obtains control of one or more businesses."

Generally, GAAP identifies that greater than 50 percent of the voting shares of an entity indicates control, however, effective control may exist with

a lesser percentage of ownership in certain circumstances.

Second, the acquisition method is required by ASC topic 805, and this method involves the following procedures:

1. Identifying the acquirer
2. Determining the acquisition date
3. Determining the consideration transferred
4. Recognizing and measuring the identifiable assets acquired, the liabilities assumed, and any noncontrolling interest in the acquiree
5. Recognizing and measuring goodwill or a gain from a *bargain purchase* (emphasis added)

Third, ASC topic 805 requires that all identifiable assets and liabilities acquired, including identifiable intangible assets, be assigned a portion of the purchase price based on their fair values. Fair value measurement emphasizes market participant assumptions and exit values.

Finally, when estimating fair value, the following issues should be considered:

1. Market participant assumptions—buyers and sellers with *all* the following characteristics:
   a. Independent (not related parties)
   b. Knowledgeable
   c. Able to transact
   d. Willing but not compelled to transact
2. Highest and best use—assumes the asset's utility is maximized and the use of the assets is physically possible, legally permissible, and financially feasible at the measurement date
3. Synergies—are excluded unless feasible at the market participant level

The Accounting Process for Business Combinations

Accountants provide a pivotal role in the analysis and financial accounting of business combinations through purchase price allocations.

The first step in accounting for a business combination is recognizing and measuring the identifiable assets acquired, the liabilities assumed, the consideration transferred, and any noncontrolling interest in the acquired company. The accountants generally rely on independent valuation analysts ("analysts") to estimate fair values. ASC topic 805 provides guidance in each of these areas.

Once the tangible assets are identified, those assets are generally valued by reference to the market approach or the income approach—unless there are insufficient data to do so. In these instances, the analyst may use the replacement cost new less depreciation method of the cost approach. Any liabilities assumed are valued in the same manner.

The analysis and valuation of intangible assets is more complex. Intangible assets are accounted for separately from goodwill if the intangible assets (1) possess contractual or legal rights or (2) can be transferred from the acquired entity. Examples of identifiable intangible assets include patents, copyrights, trademarks, customer lists, noncompete agreements, and assembled workforce.

There are several valuation methods to estimate the fair value of intangible assets, but intangible asset valuation methods are beyond the scope of this discussion.

ASC topic 805 requires that all consideration transferred and any noncontrolling interests be measured at fair value as of the acquisition date.

Additionally, the fair value of any contingent consideration (i.e., earn-out provisions) is typically estimated by probability weighting outcomes via various risk simulation tools.

If at the end of the accounting process, the consideration transferred (or purchase price) is greater than the fair value of the assets and liabilities, the difference is recorded as goodwill. Alternatively, if the fair value of the assets and liabilities is greater than the consideration transferred (or purchase price), a bargain purchase exists with immediate impact to the buyer's income statement (no such burden accrues to the seller).

Corporate acquirers will often engage an analyst to estimate the identified fair value measurements.

Valuation Considerations for Business Combinations

The analyst's role is important in the estimation of fair value for purchase price allocation purposes. As with most purchase price allocations, the first step the analyst generally takes in assessing a bargain purchase transaction is to identify all assets, liabilities, and consideration transferred.

If early value estimates indicate that a bargain purchase may exist, the analyst may notify the accountant and other stakeholders—as this indication may impact the buyer's income statement.

As previously discussed, assets are typically valued using the cost approach, the market approach, or the income approach. These generally accepted property valuation approaches are also used to value liabilities and consideration transferred. The analyst should typically consider all three generally accepted valuation approaches and provide explanations for the inclusion or exclusion of each approach.

The analyst should document his or her rationale for the valuation approaches both considered and employed in arriving at an estimate of value. This provides context for the parties involved in the bargain purchase transaction.

Given the nature of bargain purchase transactions, it can often be difficult to implement a market approach. This fact can lead to more reliance on the income approach or the cost approach.

The income approach generates an indication of the fair value of an asset based on the cash flow that an asset is assumed to generate over its useful economic life ("UEL"). The income approach is often applied through a discounted cash flow ("DCF") method.

A valuation using the DCF method is based on the present value of estimated future cash flow over the expected UEL of the asset (or business) discounted at a rate of return that incorporates the relative risk of realizing that cash flow as well as the time value of money.

"The analyst's role is important in the estimation of fair value for purchase price allocation purposes."

The DCF method is often used in estimating the business enterprise value of the acquired company. In the event of a bargain purchase, the enterprise value exceeds the price paid for the business. This relationship gives rise to important considerations for the analyst.

One such consideration is the analysis and reconciliation of the weighted average cost of capital ("WACC"), weighted average return on assets ("WARA"), and the internal rate of return ("IRR").

The WACC is calculated as the required rate of return on the investment in the acquired company by a market participant. It is generally comprised of an after-tax required rate of return on equity and an after-tax rate of return on debt. The WACC is often an important component in applying the DCF method, as it is typically used to determine the present value of expected future cash flow.

It may be necessary to estimate the WACC before establishing the stratification of the rates of return for the acquired assets. Determining the WARA allows the analyst to compare this figure to the WACC and assess the reasonableness of the required return on assets and the return required by suppliers of capital.

The WARA should typically result in a similar overall cost of capital as the WACC. This is because the WACC can be viewed as a weighted average of the required rates of return for the individual assets of the acquired company. Essentially, the operations of the acquired company are considered fundamentally equivalent to the combined assets of the acquired company.

In a purchase price allocation for a transaction occurring at or above fair value, it is generally expected that the IRR (based on projections used to value the transaction and the overall purchase price), the WACC, and the WARA are closely aligned.

In the case of a bargain purchase transaction, the IRR typically exceeds the WACC, and the WACC typically exceeds the WARA.

The misalignment between the three measures can potentially be attributed to the absence of goodwill that is often generated under normal market

conditions. Goodwill generally has a higher required rate of return than the other acquired assets, which tends to increase the WARA.

For financial accounting purposes, goodwill is generally a residual value and the rate of return is calculated as an implied rate of return. Within the context of WARA, the rate of return on goodwill can be estimated by reconciling the weighted average rates of return of all the identified assets to the WACC of the acquired company.

It is important for the analyst to understand the interrelatedness of the IRR, WACC, and WARA in the context of a bargain purchase transaction. The analyst should be prepared to discuss these three measures and what contributed to the differences between them. This may be an area of concern for analysts when reconciling the fair value of the bargain purchase transaction, as auditors generally require an explanation of the differences between the three measures.[3]

It is also important for the analyst to carefully consider the environment in which the transaction took place, as the ramifications of improperly classifying a transaction as a bargain purchase can be substantial.

Typically, certain underlying business and economic conditions are present in bargain purchase transactions. These conditions may include signs of financial distress of the target company, shortcomings in the bidding process, and desired divestiture of noncore business segments of the target firm.[4]

The analyst should gain an understanding of why the transaction was consummated below the estimated fair value as part of his or her due diligence. This understanding provides the analyst with important context surrounding how and why the transaction is not occurring at the estimated fair value.

Purchase Price Allocation Examples

Business combinations range from simple to complex, but most transactions contain similar asset structures. In Exhibit 1, the acquiring company transferred consideration of $1.2 million for net assets of $1.05 million resulting in $150,000 recorded as goodwill.

Alternatively, Exhibit 2 demonstrates a combination where the consideration paid (lowered to $1 million) is less than the estimated fair value of the net assets received. This situation is commonly referred to as negative goodwill—or a bargain purchase.

In Exhibit 2, the acquiring company will recognize an immediate gain on its income statement of $50,000. The results of a bargain purchase will have financial accounting implications including potential adjustments to total assets, shareholders' equity, taxable income, and net income.

Securities and Exchange Commission Perspective on Bargain Purchase Transactions

Even though the number of SEC enforcement actions decreased from 110 in 2016 to 76 in 2017, there is evidence that bargain purchases (and other asset valuations) are being increasingly scrutinized.[5]

While the SEC does not provide a basis or strategy for its enforcement actions, they may consider bargain purchase transactions as red flags for balance sheet overstatements.

Therefore, buyers (along with accountants and analysts) should scrutinize bargain purchase transactions to avoid complications with the SEC or other financial reporting deficiencies.

In August 2017, the SEC issued an order instituting public administrative and cease and desist proceedings against a national audit firm and one of its partners along with the relevant entity Miller Energy Resources, Inc. ("Miller").[6]

Miller is a Tennessee corporation located in Knoxville, Tennessee. Specifically, the SEC action noted the following violations:

1. Rule 102E and Section 4C of the Exchange Act
2. Failure to Properly Plan the Audit (AU 331 and 332)
3. Failure to Exercise Due Professional Care and Professional Skepticism (AU 230, 316 and 722)
4. Failure to Properly Test Fair Value Measurements and Disclosures and Using the Work of a Specialist (AU 328, 342 and 336)
5. Failure to Obtain Sufficient Competent Evidential Matter (AU 315 and 326)
6. Failure to Supervise the Engagement Team Properly (AU 311)
7. Failure to Prepare Required Documentation (AS 3)
8. Failure to Issue an Accurate Audit Report (AU 508)

Exhibit 1
Illustrative Business Combination Acquisition Accounting
Transaction Price Indicates Positive Goodwill Value

	Fair Value
Tangible Assets and Liabilities:	
Cash	$100,000
Net Working Capital	150,000
Tangible Personal Property	400,000
Real Property	300,000
	$950,000
Liabilities Assumed	(100,000)
Identifiable Intangible Assets:	
Patents	125,000
Trademarks	75,000
Fair Value of Assets and Liabilities	1,050,000
Goodwill	150,000
Consideration Transferred (purchase price)	$1,200,000

Exhibit 2
Illustrative Business Combination Acquisition Accounting
Bargain Purchase Indicates Negative Goodwill Value

	Fair Value
Tangible Assets and Liabilities:	
Cash	$100,000
Net Working Capital	150,000
Tangible Personal Property	400,000
Real Property	300,000
	$950,000
Liabilities Assumed	(100,000)
Identifiable Intangible Assets:	
Patents	125,000
Trademarks	75,000
Fair Value of Assets and Liabilities	1,050,000
Goodwill (bargain purchase element)	(50,000)
Consideration Transferred (purchase price)	$1,000,000

9. Failure to Perform Adequate Personnel Management (QC 20 and 40)
10. Failure Related to Adequate Competency and Proficiency (AU 210 and 161, QC 20)

In 2010, Miller Energy acquired oil and gas interests located in Alaska initially valued at $4.5 million. Miller subsequently inflated the value of the assets to $480 million in its 2010 financial statements, resulting in a bargain purchase gain of $277 million.

In March 2016, Miller and its subsidiaries filed a voluntary petition for Chapter 11 reorganization and cancelled and extinguished all common and preferred shares.

Prior to the Miller acquisition of the Alaskan assets, the former owners tried and failed to sell the oil and gas interests in the open market. These efforts began in late 2008 and ended in mid-2009. Additional attempts to sell the assets via bankruptcy auction also failed. Ultimately, the assets were abandoned.

During 2009, the abandonment was rescinded, and Miller acquired the oil and gas interests for $2.25 million plus the assumption of certain liabilities. Miller disclosed the value of the assets as $480 million ($368 million for properties and $110 million for fixed assets) and recorded a gain of $277 million in its first SEC Form 10-Q filing following the purchase. At that point in time, the Alaska assets were greater than 95 percent of Miller's assets.

The SEC determined the $368 million was based on reserve reports that were not suitable for fair value measurement purposes and the $110 million was duplicative. Because of the incorrect fair value measurements, it was determined that Miller materially misstated the fair value of its assets.

It is evident from the Miller case that the SEC expected more scrutiny from all the parties involved (accountants, analysts, and company management). It is also evident that while large bargain purchase transactions are possible, a gain of $277 million on a $4.5 million purchase (more than 61 times) is highly questionable and likely to receive additional scrutiny from the SEC.

Conclusion

Although generally a rare occurrence, business combinations may, in certain situations, result in a bargain purchase. Such transactions give rise to important considerations for the parties involved.

The buyer should be aware of the requirements and the process for identifying assets, liabilities, and consideration transferred. The buyer should also understand the procedures employed by the analyst in arriving at the estimated fair value of the assets, liabilities, and consideration transferred.

The analyst should ensure that appropriate methods are employed in the valuation analysis and should be prepared to discuss and reconcile any potential differences between the WARA, WACC, and IRR. One concern of the FASB and the SEC is whether the assets and liabilities acquired are appropriately reported at fair value. Bargain purchase transactions may be a red flag for potential asset overstatements.

Finally, failure to understand the implications of a bargain purchase transaction can lead to several pitfalls, including inaccurate financial accounting as well as legal action from the SEC.

Notes:

1. Juan Ramirez, *Handbook of Basel III Capital: Enhancing Capital in Practice* (Hoboken, NJ: John Wiley & Sons, 2017): 86.
2. SEC Administrative Proceeding File Number 3-18110.
3. "Application of the Mandatory Performance Framework for the Certified in Entity and Intangible Valuations Credential" (Corporate and Intangibles Valuation Organization, LLC, 2017), 25.
4. Eugene E. Comiskey and Charles W. Mulford, "Changes in Accounting for Negative Goodwill: New Insights into Bargain Purchase Transactions. Why Sell for Less Than Fair Value?" whitepaper, http://hdl.handle.net/1853/39313 (April 2011), 23.
5. David Woodcock, Joan E. McKown, and Henry Klehm III, "SEC Enforcement in Financial Reporting and Disclosure —2017 Year-End Update,"Harvard Law School Forum on Corporate Governance, https://corpgov.law.harvard.edu/2018/02/19/sec-enforcement-in-financial-reporting-and-disclosure-2017-year-end-update/ (January 2018).
6. SEC Administrative Proceeding File Number 3-18110 (2017).

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

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

Transfer Pricing Testifying Expert Services

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

Income Taxation Testifying Expert Services

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

Condemnation Proceeding Testifying Expert Services

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

Family Law Testifying Expert Service

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

Bankruptcy Testifying Expert Services

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

Property Taxation Testifying Expert Services

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

Dissenting Shareholder Rights Testifying Expert Services

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

Accounting Standards Updates in Business Combinations and Goodwill Impairment

Terry G. Whitehead, CPA

The Financial Accounting Standards Board ("FASB") regularly issues updates and modifications to U.S. generally accepted accounting principles. During 2017, the FASB promulgated two significant Accounting Standards Updates ("ASUs"). These ASUs affect the estimation of fair value measurement for financial accounting purposes. It is important for valuation analysts to be aware of such updates in order to provide fair value measurement valuation services.

Introduction

The purpose of this discussion is to provide an overview of recent Financial Accounting Standards Board ("FASB") Accounting Standards Updates ("ASUs"). These ASUs have an impact on the financial accounting guidance related to the estimation and valuation of fair value measurements:

1. in business combinations and
2. in subsequent intangible asset impairment tests.

During January 2017, the FASB released two ASUs related to the following financial accounting issues:

1. FASB ASU No. 2017-01, January 2017, Business Combinations (Topic 805), Clarifying the Definition of a Business ("ASU 2017-01")
2. FASB ASU No. 2017-04, January 2017, Intangibles—Goodwill and Other (Topic 350), Simplifying the Test for Goodwill Impairment ("ASU 2017-04")

The following discussion presents an overview of the authoritative accounting principles in the United States and the general process by which such principles may be amended. This discussion also summarizes the primary elements and the notable changes contained in ASU 2017-01 and ASU 2017-04.

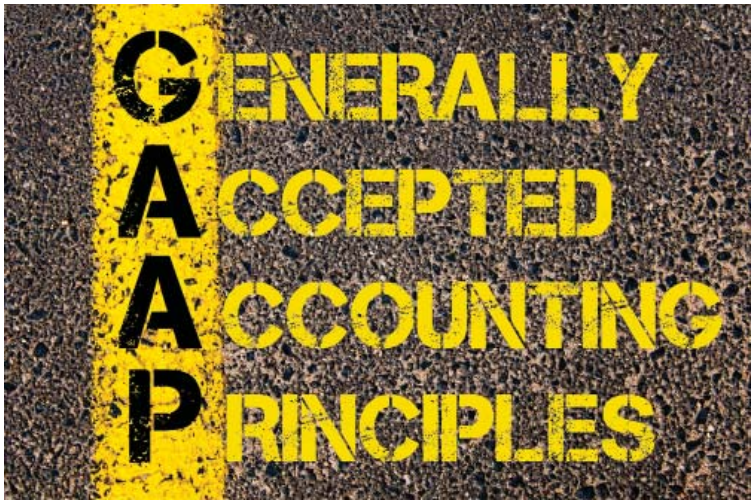
Overview of Generally Accepted Accounting Principles Authoritative Guidance

Generally accepted accounting principles ("GAAP") represent a common set of accounting principles, standards, and procedures which companies follow in the reporting of financial information. The intent of GAAP is to promote and ensure a level of consistency in financial statements so that users may understand, analyze, and compare financial information.

GAAP are a set of standards (developed primarily by FASB) designed to improve the transparency in financial statements. Such standards do not guarantee the financial statements will be free of errors, omissions, or misstatements.

The three principal sources of GAAP are as follows:

1. FASB pronouncements and statements



2. Security and Exchange Commission ("SEC") regulations for public companies
3. Accounting practices developed by industries and other recognized bodies over time

Effective for periods ending after September 15, 2009, the FASB Accounting Standards Codification ("Codification") became the source of authoritative GAAP to be applied to nongovernmental entities. All other accounting literature is now considered nonauthoritative.[1]

The FASB accomplishes its mission through the service of seven full-time members (the "Board"). Board members are appointed for five-year terms and are eligible for an additional five-year term.

The standards-setting process for updates to GAAP varies, but it is designed to adhere to the following procedures:[2]

1. The Board identifies financial accounting issues based on requests/recommendations from stakeholders or through other means.
2. The FASB decides whether to add a project to the technical agenda based on staff-prepared analysis of the issues.
3. The Board deliberates at one or more public meetings the various reporting issues identified and analyzed by the staff.
4. The Board issues an Exposure Draft to solicit broad stakeholder input.
5. The Board holds a public roundtable meeting on the Exposure Draft.
6. The staff analyzes comment letters, public roundtable discussion, and all other information obtained through due process activities. The Board redeliberates the proposed provisions.
7. The Board issues an ASU describing amendments to the Codification.

FASB Accounting Standards Codification

FASB Accounting Standards Codification ("ASC") topic 105—Generally Accepted Accounting Principles ("ASC topic 105") established the Codification as the sole source of GAAP in the U.S. for nongovernmental entities. Rules and interpretive releases of the SEC are also sources of authoritative GAAP for SEC registrants.

Following the issuance of ASC topic 105, all new standards will be issued as ASUs. ASUs are not considered authoritative in their own right, but serve as updates (or amendments) to Codification including background information about guidance and basis for changes to the Codification.

In addition to the authoritative GAAP established in ASC topic 105, nonauthoritative GAAP was defined. Such accounting and financial reporting practices which are not included in the Codification are considered to be nonauthoritative.

Nonauthoritative accounting guidance includes, but is not limited to, the following:

- FASB ASUs
- Practices that are widely recognized and prevalent including industry accounting practices
- American Institute of Certified Public Accountants ("AICPA") Issues Papers
- Pronouncements of professional associations or regulatory agencies

As identified in the list above, FASB ASUs (such as those that are the subject of this discussion) are nonauthoritative. The following disclosure is included at the beginning of ASU 2017-01 and ASU 2017-04:

> An Accounting Standards Update is not Authoritative; rather, it is a document that communicates how the Accounting Standards Codification is being amended. It also provides other information to help a user of GAAP understand how and why GAAP is changing and when the changes will be effective.

Each ASU explains the following:[3]

1. How the FASB has changed U.S. GAAP, including each specific amendment to the FASB Codification
2. Why the FASB decided to change U.S. GAAP and background information related to the change
3. When the changes will be effective and the transition method

The following discussion presents an overview of ASC topic 805 and ASC topic 350 and the recently published related ASUs.

Overview of Business Combinations (ASC Topic 805)

The Codification includes the full text of ASC topic 805, which relates to the accounting treatment and fair value reporting in business combinations. Section 805-10-05 Overview and Background ASC topic 805 includes the following subtopics:

1. 805-10 Overall
2. 805-20 Identifiable Assets and Liabilities, and Any Noncontrolling Interest
3. 805-30 Goodwill or Gain from Bargain Purchase, including Consideration Transferred
4. 805-40 Reverse Acquisitions
5. 805-50 Related Issues
6. 805-60 Income Taxes

Each of the above subtopics include multiple subsections which are subject to ongoing review and possible amendment, including the issuance of an ASU by FASB.

Overview of Notable Changes to ASC Topic 805 Provided in ASU 2017-01

The amendments provided in ASU 2017-01 primarily relate to amendments to subtopic 805-10-55 (Implementation Guidance and Illustrations) and concentrate on clarifying the definition of a business.

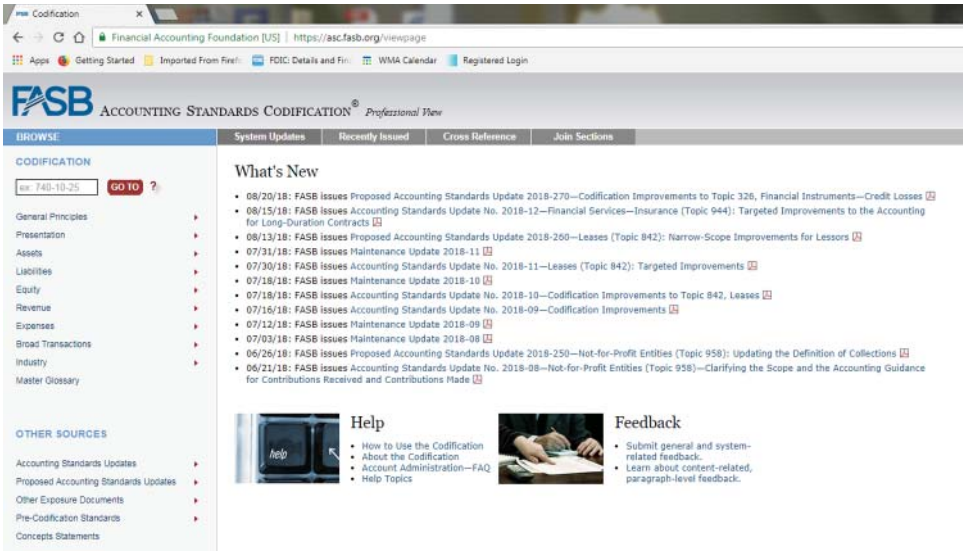
Exhibit 1 presents a comparison (from an accounting perspective) of certain differences between the acquisition of an asset and the acquisition of a business.

Based on the recognized accounting differences between the acquisition of an asset and the acquisition of a business, it may be preferable for an acquirer to desire one accounting treatment over the other.

FASB indicated that many stakeholders provided feedback suggesting the definition of a business is applied too broadly resulting in many transactions being recorded as business acquisitions when they should potentially be more appropriately considered as an acquisition of assets. Concerns were also raised that the current definition made

Exhibit 1
Comparison of a Business Combination and an Asset Acquisition

Accounting Issue	Asset Acquisition	Business Combination
Contingent Consideration	Accounted for based on other GAAP (not subject to ASC 805)	Recognized at fair value on the acquisition date, any changes recognized through earnings for periods after the acquisition date
Transaction Costs	Capitalized	Expensed
Initial Measurement	Cost allocated on a relative fair value basis	Fair value
Goodwill/Bargain Purchase	Not recognized, any overpayment or underpayment is allocated to identifiable assets and liabilities on a relative fair value basis	Goodwill is recognized as an asset and any bargain purchase is recognized as a gain in current earnings



it difficult and costly to comply with the required provisions.

ASU 2017-01 provides further clarification on whether an acquisition should be accounted for as a business combination. The following discussion summarizes some of the notable changes included in the amendments contained in ASU 2017-01.

Under current guidance in ASC topic 805, there are three elements of a business:

1. Inputs
2. Processes
3. Outputs

These elements are defined as follows (with the amended changes identified):[4]

> *Input*. Any economic resource that creates, or has the ability to ~~create~~ contribute to the creation of, outputs when one or more processes are applied to it. Examples include long-lived assets (including intangible assets or rights to use long-lived assets), intellectual property, the ability to obtain access to necessary materials or rights, and employees.
>
> *Process*. Any system, standard, protocol, convention, or rule that when applied to an input or inputs, creates or has the ability to ~~create~~ contribute to the creation of outputs. Examples include strategic management processes, operational processes, and resource management processes. These processes typically are documented, but the intellectual capacity of an organized workforce having the necessary skills and experience following rules and conventions may provide the necessary processes that are capable of being applied to inputs to create outputs. Accounting, billing, payroll, and other administrative systems typically are not processes used to create outputs.
>
> *Output*. The result of inputs and processes applied to those inputs that provide goods or services to customers, investment income (such as dividends or interest), or other revenues ~~or have the ability to provide a return in the form of dividends, lower costs, or other economic benefits directly to investors or other owners, members, or participants~~.

Section 805-10-55-5 expands on the above elements with the following description (and amendments) of a business.[5]

> An integrated set of activities and assets requires two essential elements—inputs and processes applied to those inputs. ~~inputs, which together are or will be used to create outputs. However, a~~ A business need not include all the inputs or processes that the seller used in operating that business ~~if market participants are capable of acquiring the business and continuing to produce outputs, for example, by integrating the business with their own inputs and processes~~. However, to be considered a business, the set must include, at a minimum, an input and a substantive process that together significantly contribute to the ability to create output.

Single or Similar Asset Threshold

The previously identified amended definitions are also being updated to reflect the following threshold further described in the newly added sections 805-10-55-5A through 5F.

The following is an excerpt from the newly added section 805-10-55-5A.[6]

> If substantially all of the fair value of the gross assets acquired is concentrated in a single identifiable asset or group of similar

identifiable assets, the set is not considered a business.

ASU 2017-01 presents a number of specific case examples and scenarios illustrating the amended definition of a business.

One scenario included in ASU 2017-01 presents an acquisition of a portfolio of 10 single-family homes each with leases in place. Since each home includes the land, building, and property improvements, they can be considered a "single identifiable asset" under the amended definition since they cannot be removed without incurring significant cost.

Also, the in-place lease intangible assets are related to the real estate and should, therefore, be combined. As a result, since the substantial value of the assets acquired are concentrated in similar identifiable assets, the set is not a business.

Although citing additional specific examples is beyond the scope of this discussion, it is clear that the intended result is a more restrictive interpretation of a business which is likely to lead to the ability, in certain circumstances, for companies to account for a transaction as an acquisition of assets rather than an acquisition of a business as would have been previously interpreted and required.

Summary of Primary Changes

The amendments included in ASU 2017-01 result in the following primary changes:

- Single or similar asset threshold (if substantially all of the fair value of the gross assets is concentrated in a single asset or group of similar assets, the set is not considered a business)
- To be considered a business, a set should include, at a minimum, an input and a process (both are required to significantly contribute to the ability to create an output)
- Elimination of the market participant determination regarding any missing elements of a business
- Outputs are focused on revenue rather than the previous inclusion of "other economic benefits"

The amendments included in this ASU are effective for public companies for annual periods beginning after December 15, 2017. All other entities should recognize the amendments for annual periods beginning after December 15, 2018.

Overview of Intangibles—Goodwill and Other (ASC Topic 350)

Similar to the discussion in the previous section on ASC topic 805, the Codification includes the full text of ASC topic 350 which relates to the accounting treatment and fair value reporting of goodwill and other intangible assets, including the subsequent measurement of such intangible assets. Section 350-10-05 Overview and Background ASC topic 350 includes the following subtopics:

1. 350-10 Overall
2. 350-20 Goodwill
3. 350-30 General Intangibles Other Than Goodwill
4. 350-40 Internal-Use Software
5. 350-50 Website Development Costs

Each of the above subtopics include multiple subsections which are subject to ongoing review and possible amendment, including the issuance of an ASU by FASB.

Overview of Notable Changes to ASC Topic 350 Provided in ASU 2017-04

The amendments provided in ASU 2017-04 primarily relate to subsequent goodwill impairment tests contained in subtopic 350-20-35 Subsequent Measurement.

The most notable change contained in this ASU is the removal of what was previously recognized as Step 2 of the goodwill impairment test. As a result, companies can comply with the provisions of ASC topic 350 with the implementation of a single quantitative impairment test. The previous Step 1 impairment test procedure has been amended as follows while all Step 2 procedures have been superseded and removed.

An entity still has the option to perform the qualitative assessment to determine if the quantitative impairment test is necessary.[7]

> The quantitative ~~first step of the~~ goodwill impairment test, used to identify both the existence of ~~potential~~ impairment and the amount of impairment loss, compares the fair value of a reporting unit with its carrying amount, including goodwill.
>
> If the fair value ~~carrying amount~~ of a reporting unit ~~is greater than zero and its fair value~~ exceeds its carrying amount, goodwill of the reporting unit is considered not impaired ~~impaired; thus, the second step of the impairment test is unnecessary. If the carrying amount of the reporting unit is zero or negative, the guidance . . . *[for Step 2]* . . . shall be followed~~.

The previous Step 1 test was conducted to determine if a potential impairment existed which could then require the determination under Step 2. The previous Step 2 test required a company to compare the fair value of *goodwill* with the carrying amount of *goodwill*.

This comparison was generally accomplished by estimating the fair value of a company's tangible and intangible assets in order to attribute value to all of the company's assets and liabilities (other than goodwill) so that a direct comparison could be made between the estimated fair value of goodwill and the carrying amount of goodwill.

This prior goodwill analysis was similar to the unit being acquired in a business combination. The amendment simplifies the process to a single step test which identifies both (1) the existence of and (2) the amount of impairment loss.

For reporting units with zero or negative carrying amounts, there was not previously a requirement to disclose such situations in a company's financial statements.

As such, there could be instances where goodwill is recorded in a company's financial statements which includes a portion of goodwill attributable to reporting units without a positive carrying amount. In such a scenario, there is the possibility that goodwill has been impaired for the reporting unit.

Due to the zero or negative carrying amount, historically there was not a requirement to quantify any such potential goodwill impairment under the identified rules.

Since these reporting units still may not record an impairment charge under the new single step test, a company is now required to disclose the amount of goodwill allocated to each reporting unit with a zero or negative carrying amount. The FASB concluded that the potential lack of transparency associated with these reporting units would be sufficient under this amended process to alert users of potential goodwill issues.

Additionally, research indicated that the population of such reporting units was relatively small, and FASB concluded that it would be counterintuitive for different tests to be applied to

various reporting units if alternative procedures were required for reporting units with zero or negative carrying amounts.

Summary of Primary Changes

The Figure 1 flowchart summarizes the single step impairment test which replaces the previous two-step process.[8]

The amendments included in this ASU are effective for public companies (that are SEC filers) for annual periods beginning after December 15, 2019, and for public companies (that are not SEC filers) for periods beginning after December 15, 2020. All other entities should recognize the amendments for annual periods beginning after December 15, 2021. Early adoption is permitted for goodwill impairment tests performed after January 1, 2017.

Summary of Fair Value Accounting Standards Updates

An ongoing objective of the FASB is to seek feedback from stakeholders and provide transparency and consistency in the reporting of financial statements.

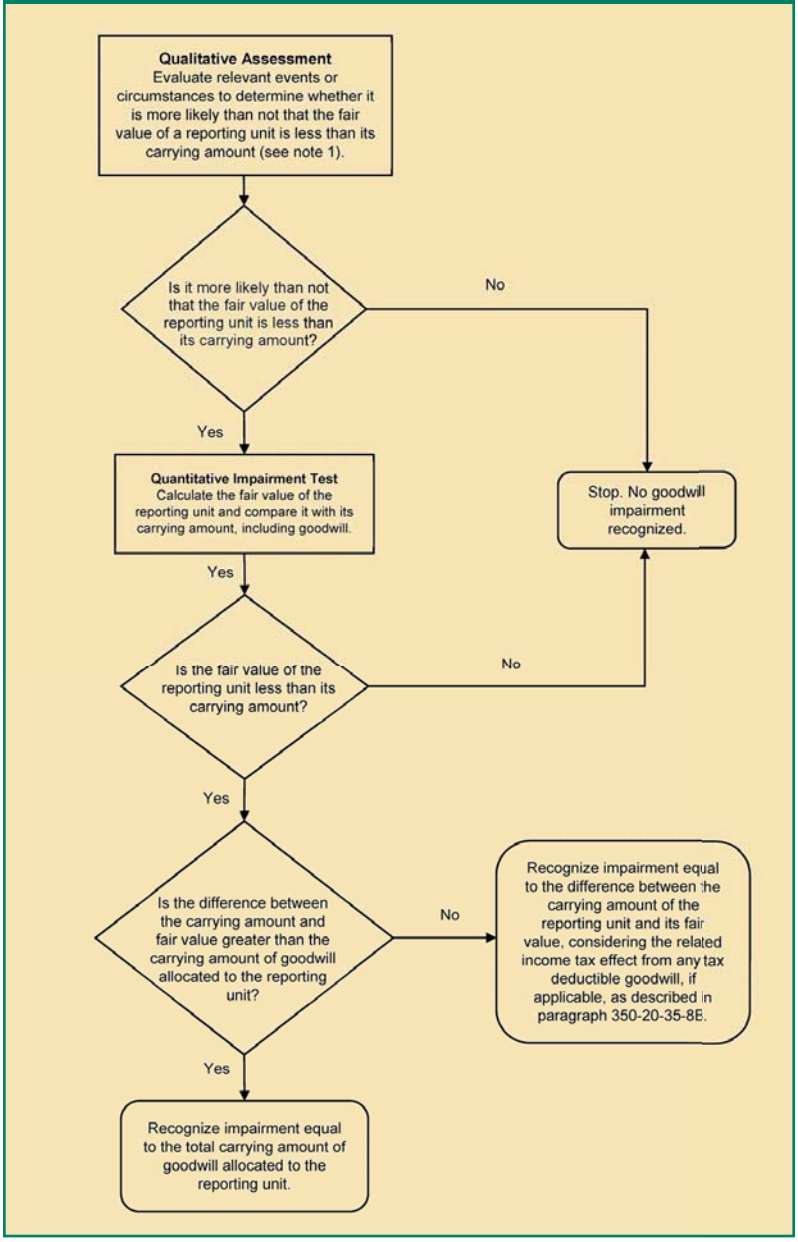
As concerns and topics are identified, a process is established to consider potential updates to the current accounting guidelines and rules. During 2017, two significant ASUs were published which will affect the estimation of fair value for financial accounting purposes in upcoming periods.

The FASB considers ongoing improvements as necessary to assist stakeholders and users of financial statements. Stakeholders previously submitted concerns regarding the cost and complexity of the previous requirements under both ASC topic 805 and ASC topic 350.

The amendments approved in the previously discussed ASUs will impact the valuation considerations for both the entities involved and the consultants providing the necessary independent valuation services.

It is important for analysts to be aware of GAAP and the ongoing ASUs in order to appropriately recognize, understand, and implement the potential impact on valuation engagements, including the potential scope of such assignments.

Figure 1
Goodwill Impairment Test Procedures



Notes:

1. www.fasb.org, Standards/Accounting Standards Codification, About the Codification (v 4.10).
2. www.fasb.org, About Us/Standard-Setting Process.
3. www.fasb.org, Standards/Accounting Standards Updates Issued.
4. ASU 2017-01, 6
5. Ibid.
6. Ibid., 7.
7. ASU 2017-04, 8.
8. Ibid., 24.

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The Market Participant Acquisition Premium for Fair Value Measurement

Timothy J. Meinhart

An ownership control premium is commonly applied when valuing controlling ownership interests in business enterprises for financial accounting purposes. However, there is a diversity of practice among valuation analysts ("analysts") about how control premiums are measured and applied in fair value measurements. In an effort to develop best practices in the area of control premiums, the Appraisal Foundation issued Valuations in Financial Reporting Valuation Advisory #3: The Measurement and Application of Market Participant Acquisition Premiums *("VFR Advisory #3"). VFR Advisory #3 outlines the factors that analysts should consider when measuring and applying ownership control premiums in fair value measurements.*

Introduction

Since the enactment of financial accounting guidance published in Accounting Standards Codification ("ASC") topic 805—Business Combinations, ASC topic 350—Intangibles—Goodwill and Other, and ASC topic 820—Fair Value Measurement, there has been an ongoing requirement to properly recognize assets and liabilities at fair value in financial statements.[1]

In order for financial accounting to be consistent and reliable from entity to entity, valuation analysts ("analysts") need to provide similarly reliable analyses.

In an effort to promote quality and consistency of financial reporting, the Appraisal Foundation has issued guidance regarding best practices on certain valuation topics that are used in fair value measurements.

On September 6, 2017, the Appraisal Foundation issued Valuations in Financial Reporting Valuation Advisory #3: *The Measurement and Application of Market Participant Acquisition Premiums* ("VFR Advisory #3").[2]

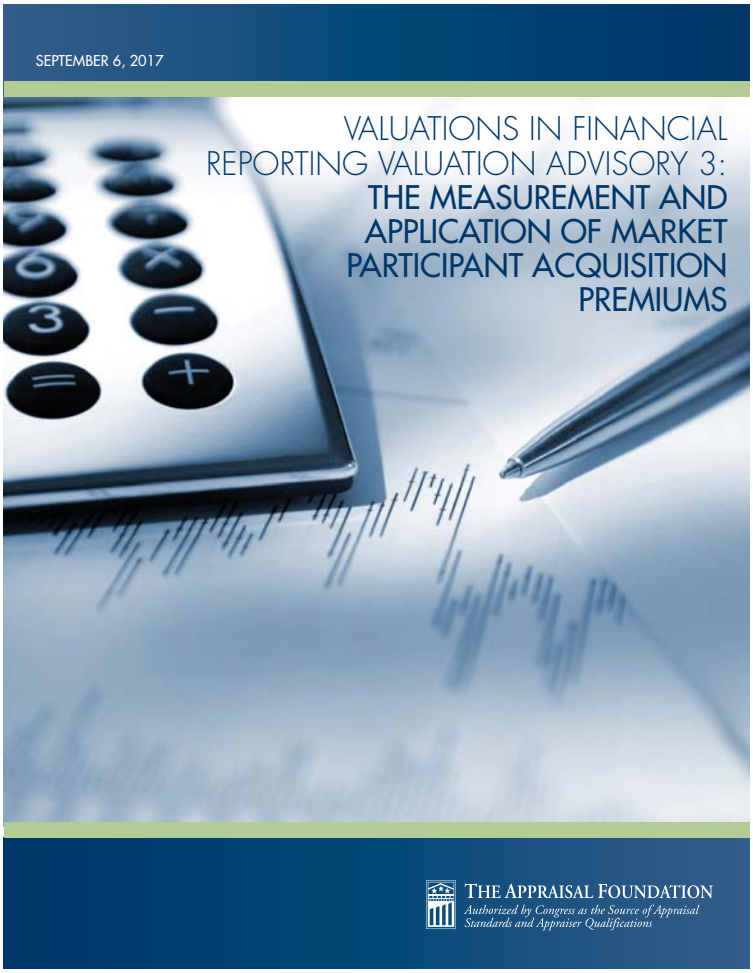
VFR Advisory #3 is intended to set forth best practices for certain issues that an analyst may encounter in measuring the fair value of controlling interests in business enterprises for financial accounting purposes.

This discussion summarizes the following topics, as discussed in VFR Advisory #3:

- The concept of the market participant acquisition premium ("MPAP")
- Conceptual considerations and business characteristics that influence the MPAP
- Analytical methods for estimating the MPAP

Background

When valuing controlling ownership interests in a business enterprise for financial accounting purposes, analysts often consider and apply an ownership control premium. Common examples of fair value measurements utilizing a control premium include the goodwill impartment test under ASC topic 350, portfolio valuation of investment companies, and the acquisition method of business combinations for certain transactions.



Over the years, there has been notable inconsistency regarding the application of control premiums. In order to promote consistency and develop best practices in the area of control premiums, a working group was formed. The results of the working group are summarized in VFR Advisory #3.

VFR Advisory #3 describes the long-standing and generally accepted theory that the publicly traded price of a company's shares represents the value of a noncontrolling (or minority) ownership interest. As such, a "premium for control" should be considered when estimating the value of a controlling ownership interest, particularly when applying a publicly traded company method. However, this concept has been challenged by some analysts in the business valuation community.

VFR Advisory #3 addresses the concept that the premium an acquiror may pay over the publicly traded price of an acquisition target does not necessarily represent a price premium for merely acquiring control. Instead, the price premium reflects the expected increase in value that may be achieved by exercising control.

In other words, an acquisition price that is in excess of the target company's publicly traded price may be reasonable if the acquiror expects to increase the cash flow, increase the growth, and/or reduce the risk of the target company.

In contrast, if no such increases or risk reductions can be made, the acquiror would generally be reluctant to pay an acquisition price that is in excess of the target's publicly traded price. In such an instance, the publicly traded price may reasonably reflect the entity's control value.

VFR Advisory #3 also introduces the concept of an MPAP. The introduction of this new term was intended to:

1. emphasize the importance of the market participant's perspective when measuring fair value and
2. distinguish this price premium from the more commonly recognized, and often misapplied, control premium.

VFR Advisory #3 indicates that it is not intended to be an authoritative valuation standard. The working group drafting VFR Advisory #3 recognized that different situations often require different valuation procedures and specific facts and circumstances may support a departure from the recommendations described in VFR Advisory #3.

VFR Advisory #3 also indicates that it was developed for measuring fair value for financial accounting purposes and is not intended to be valuation guidance for other purposes.

Many analysts agree that the overall impact of VFR Advisory #3 will most likely be (1) more rigorous analyses related to control premiums and (2) a greater consistency among analysts in how control premiums are measured and applied in the context of fair value measurements.

Defining the MPAP

VFR Advisory #3 defines the MPAP as the difference between:

1. the pro rata fair value of the subject controlling ownership interest and
2. its "foundation."

For purposes of this definition, "foundation" is measured with respect to the current stewardship (i.e., management) of the business enterprise.

More specifically, foundation contemplates that the prerogatives of control will continue to reside

with the existing controlling shareholder or group of shareholders.[3]

For purposes of VFR Advisory #3, foundation is considered to be the pro rata fair value of a marketable, noncontrolling ownership interest in a business enterprise. In the case of a publicly traded company, often this is its quoted public stock price. However, as will be discussed below, VFR Advisory #3 addresses the use of either an entity's public stock price or the entity's total invested capital as a measure of foundation.

To further explain the concept of an MPAP and its foundation, consider a business enterprise with a founder who owns and controls 80 percent of the equity. Also consider that ownership of the remaining 20 percent of the equity is fragmented with no single shareholder holding more than 2 percent of the stock. The subject entity has several available investment opportunities that would enhance the company's value. However, the controlling shareholder has chosen not to make any of these investments.

Given this set of facts, there is likely to be an MPAP that would be applied in the valuation of a controlling ownership interest in the entity. In other words, the price that may be paid by market participants for a controlling ownership interest in the company is likely to exceed the price that may be paid for a noncontrolling ownership interest that reflects the current stewardship of the company (i.e., the foundation).

According to VFR Advisory #3, the magnitude of the MPAP would be influenced by the perceived ability of market participants to exercise the prerogatives of control to increase the cash flow and/or reduce the cost of capital applicable to the subject controlling ownership interest.[4]

VFR Advisory #3 makes it clear that the analyst is responsible for identifying and evaluating the feasibility of the available value-enhancing strategies that may be implemented by market participants. In this regard, the analyst's estimate of the MPAP will consider the magnitude of the available economic benefits and the degree to which the potential benefits may influence the price that market participants may pay for the subject controlling ownership interest.

VFR Advisory #3 does not state that the potential economic benefits should be precisely quantified, but rather, an analysis should be performed to identify which form(s) of economic benefit market participants could reasonably expect to enjoy and some general magnitude of the effects of those benefits on value.[5]

In general, the authors of VFR Advisory #3 state that an MPAP should be supported by reference to (1) enhanced cash flow and/or (2) a lower required rate of return from the perspective of a market participant.

In instances where no such opportunities exist for a market participant to either enhance cash flow or lower an entity's cost of capital, the authors conclude that the MPAP is most likely minimal or nonexistent.

"[T]he analyst is responsible for identifying and evaluating the feasibility of the available value-enhancing strategies that may be implemented by market participants."

Conceptual Considerations

VFR Advisory #3 provides several commonly cited examples of prerogatives of control that may be possessed by a controlling owner of a business enterprise.

VFR Advisory #3 points out that these prerogatives, such as the right to appoint a majority of the board of directors, the right to recapitalize the company, or the right to select suppliers and vendors, have only limited inherent value in and of themselves.

In other words, these commonly cited rights are merely a means through which market participants may be able to generate incremental economic benefits. For example, the right of a controlling shareholder to elect a majority of the board of directors does not necessarily convey any economic benefit to market participants unless the ability to elect the majority of the board enables the company to increase its revenue and/or lower its costs.

In this case, the expected economic benefit would potentially affect the price that would be paid by market participants and, potentially, influence the magnitude of the MPAP.

As previously described, VFR Advisory #3 states that an MPAP should be supported largely by expected economic benefits that would arise from (1) enhanced cash flow and/or (2) the lower required rates of return from a market participant's perspective.

In this regard, the analyst is tasked with identifying the economic benefits that would reasonably be available to several market participants rather than any one specific market participant (i.e., buyer).

In other words, the expected economic benefits that are available to a group of market participants are generally considered in the MPAP, but benefits available to only a single market participant are not.

In terms of economic benefits that arise from enhanced cash flow, VFR Advisory #3 notes several areas where a market participant may implement strategies that lead to increased cash flow.

These areas include, but are not limited to, the following:

- Increased revenue growth
- Increased operating margins
- Working capital efficiencies
- Capital expenditures efficiencies

Regardless of the area that leads to increased revenue or decreased costs, it is important to recognize that to be relevant in estimating the MPAP, the enhanced cash flow must be incremental to the cash flow that was expected under current company stewardship.

Stated another way, the enhanced cash flow that gives rise to an MPAP is incremental to the prospective financial information that reflects the ongoing operations of the business enterprise absent a change of control transaction.[6]

In terms of economic benefits that arise from a lower required rate of return, VFR Advisory #3 notes there are several reasons why market participants may have a lower required rate of return for a controlling ownership interest than for an otherwise identical, but noncontrolling, ownership interest under current company stewardship.

Some of these reasons include, but are not limited to, the following:

- Change in capital structure
- Economies realized through increased company size
- Reduced operating risk

While each of the above-described reasons for a lower rate of return may potentially be achieved by larger-sized market participants, VFR Advisory #3 points out that there is not a consensus among analysts regarding the relationship between (1) the size of the target company and (2) the required return from a market participant's perspective.

This is because some analysts observe that market participants use a cost of capital that is consistent with the target company size when estimating the price to pay in transactions. In contrast, other analysts observe that market participants use a cost of capital that reflects the anticipated benefits of increased size and diversification that result post transaction.

While either measurement may be relevant when measuring fair value, it is at the discretion of the analyst to select the measurement that is most reflective of fair value. In doing so, the analyst should not assume that market participants always incorporate all anticipated economic benefits of ownership control in the price they pay for acquisitions.

Additionally, analysts should not assume that the public market has necessarily undervalued noncontrolling ownership interests.

As VFR Advisory #3 indicates, the existence of an investment analyst stock price target in excess of the stock's trading price does not provide direct evidence of the MPAP.[7]

Business Characteristics That Influence the MPAP

VFR Advisory #3 discusses several factors the analyst should consider when estimating the price market participants may pay for a controlling ownership interest and, ultimately, the MPAP.

The following discussion summarizes the factors described in VFR Advisory #3.

- Acquisition Activity in the Industry—Increased acquisition activity in a particular industry generally signals that market participants believe there are greater opportunities to generate economic benefits through change of control transactions. Increased activity may also increase the number of potential acquirors, which could increase the MPAP.
- Company's Life Cycle State—Mature companies generally present fewer opportunities for change of control acquirors to enhance cash flow or lower the cost of capital.

  In contrast, growth-stage companies generally offer greater opportunities for market participants to increase revenue growth rates and improve margins. Consequently, the MPAP is generally lower for mature companies than for growth-stage companies, all else being equal.
- Market Participant Attributes—VFR Advisory #3 states that market participants are generally classified into three categories:

(1) strategic acquirors, (2) financial acquirors, and (3) conglomerate acquirors.

In estimating the MPAP, the analyst should properly identify the market participants and relate the anticipated economic benefits of ownership control to the strategies that would be employed by these potential acquirors.

- Market Participant Size—In many cases, market participants are significantly larger than the target company. These larger companies are often able to extract greater economic benefit from the target company than current ownership.

  As a result, a larger MPAP may be appropriate for market participants that are significantly larger than the subject company.
- Availability of Information—There may be a difference in the information that is made available to market participants for a controlling ownership interest versus market participants for a noncontrolling ownership interest. This information asymmetry can influence the fair value of a controlling ownership interest and the magnitude of the MPAP.
- Capital Structure of the Target Company—The greater the opportunity to change the target company's capital structure to a more optimal mix of debt and equity, the greater the potential MPAP, all else being equal.
- Management's Goals and Objectives—Privately held companies are often managed with different goals and objectives than publicly traded companies. Acquirors may find greater opportunities to reduce costs and enhance cash flow in privately held companies than in publicly traded companies.

  In these instances, the MPAP for a controlling interest in a privately held company may exceed the MPAP for a similar interest in a publicly traded company.
- Quality of Management—If the quality of the current management team is perceived by market participants to be less than optimal, there may be an opportunity to enhance cash flow through a change in management. The larger the economic impact such a change would have on the company, the larger the MPAP, all else being equal.
- Regulatory Factors—A company may be subject to a variety of regulatory factors, which have a significant effect on the company's operations. These regulatory factors should be considered from the market participants' perspective when estimating their impact on the MPAP.
- Corporate Governing Documents—When valuing a controlling interest in a company, an analyst should review the company's governing documents for any provisions that may restrict or limit the subject interest's ability to exercise control over the company.

  The magnitude of the MPAP should be correlated with the level of control that can be exercised by a holder of the subject interest.
- Transaction Structure—Tax characteristics and contingent consideration may have a significant influence on the price paid for a controlling business interest. Analysts should consider the influence that transaction structure has on the price paid for a business interest and the pricing multiples and control premium that are implied by the transaction.

VFR Advisory #3 states that the above-described factors, while not all inclusive, should be considered by analysts when estimating the price market participants would pay to acquire controlling ownership interests.

Analytical Methods

VFR Advisory #3 states that the MPAP may be expressed as either (1) a dollar amount (i.e., the difference between the pro rata fair value of a controlling interest and its foundation) or (2) a percentage (i.e., the percentage premium by which the pro rata fair value of a controlling interest exceeds its foundation).

Historically, analysts have typically used the equity foundation to calculate the transaction premium as a percentage. For example, if a stock was trading at $10 per share immediately before a $12 per share change of control transaction was announced, many analysts in the valuation community would calculate the acquisition premium as 20 percent [($12 – $10) / $10].

This way of measuring a publicly traded company acquisition premium was also consistent with the way many of the publicly available transaction databases reported the information in the past.

However, VFR Advisory #3 concluded that there is a more accurate way to express these acquisition premiums. More specifically, it concluded that calculating the MPAP as a percentage of the equity foundation is potentially misleading and it distorts the comparability of the MPAP among companies with different capital structures.

The authors suggest that an MPAP as a percentage of the total invested capital foundation may be a better way to express the MPAP percentage given that the prerogatives of control enhance the fair value of the entire business enterprise, not just the fair value of the equity.

Exhibit 1 presents an example that illustrates how transactions of similar companies at the same purchase price result in the same invested capital foundation MPAP. However, these same target companies produce a vastly different equity foundation MPAP due primarily to the difference in the leverage of the companies.

Assume the invested capital of both Alpha Company and Beta Company, on a noncontrolling interest basis, is $100. Alpha Company has debt of $20 and equity of $80. Beta Company has debt of $60 and equity of $40.

The invested capital of both companies, on a controlling interest basis, is $130. Under this set of assumptions, the MPAP, based on the total invested capital foundation, for both companies is $30 ($130 – $100) or 30 percent. However, if we calculated the MPAP using the more traditional equity foundation, the result would be significantly different.

As presented in Exhibit 1, the $30 MPAP for Alpha Company, when compared to its equity foundation of $80, translates to an MPAP percentage of 38 percent. Alternatively, the $30 MPAP for Beta Company, when compared to its equity foundation of $40, translates to a much higher MPAP percentage of 75 percent.

As presented in Exhibit 1, 30 percent is a more accurate measurement of the MPAP percentage that was paid to acquire a controlling ownership interest in both business enterprises.

In contrast, the 38 percent and 75 percent equity foundation MPAP, while not necessarily incorrect, is largely influenced by the specific capital structure of each company.

Exhibit 1
Comparison of MPAP Percentages

	Alpha Company	Beta Company
Fair Value of Equity	$80	$40
Fair Value of Debt	$20	$60
Fair Value of Invested Capital - Noncontrolling Interest Basis (i.e., foundation)	$100	$100
Fair Value of Invested Capital - Controlling Interest Basis	$130	$130
MPAP	$30	$30
MPAP % Using Equity Foundation:		
MPAP	$30	$30
Fair Value of Equity	$80	$40
MPAP	38%	75%
MPAP % Using Invested Capital Foundation:		
MPAP	$30	$30
Fair Value of Invested Capital - Noncontrolling Interest Basis	$100	$100
MPAP	30%	30%

VFR Advisory #3 states that best practices include expressing and applying the MPAP on the basis of total invested capital.[8]

Various publicly available databases provide details of transactions in which buyers acquired controlling ownership interests of publicly traded companies. Many of these databases also report the transaction premium that was paid by the buyer over the publicly traded price of the target company.

Analysts have routinely used this premium data when estimating the MPAP for a valuation subject. The authors of VFR Advisory #3 caution that exclusive reliance on these observed transaction premiums of prior transactions, in most instances, is insufficient support for a concluded MPAP.

While VFR Advisory #3 states that observed historical transaction premiums may provide some evidence of the magnitude of economic benefits expected by market participants, exclusive reliance on the observed premiums is discouraged without thorough analysis of the subject transaction data and the valuation subject.

VFR Advisory #3 outlines various factors that the analyst should consider when analyzing historical transaction premium data and deciding whether such data need to be adjusted prior to their use in estimating an MPAP. Each of the following factors can have a significant effect on the premium that is observed for a given transaction.

The factors, as described in VFR Advisory #3, are as follows:

- Size of the Interest Transacted—The analyst should attempt to determine whether the transaction that produced the premium was of a 100 percent ownership interest or of a smaller controlling ownership interest. The size of the acquired interest and the prerogatives of control that are associated with the acquired interest may have influenced the magnitude of the observed transaction premium.
- Financial Condition of Seller—The analyst should research whether the acquired company was subject to financial distress. Such a situation would undoubtedly affect that price that was paid for the target company and the observed transaction premium.
- Relationship of Buyer and Seller—If the parties to a transaction had a preexisting relationship, it is possible that the terms of the subject transaction may not be at arm's length. In that case, the analyst should be skeptical whether the transaction can be used as a basis for supporting an MPAP.
- Stated Rationale for Transaction—Some transactions may be more financial in nature while others may be more strategic in nature. The analyst should research whether the transaction involved a strategic acquiror who based its purchase price on buyer-specific post-transaction synergies. Such a transaction would not necessarily be useful for estimating an MPAP.

"Various publicly available databases provide details of transactions in which buyers acquired controlling ownership interests of publicly traded companies."

- Changes in Market Conditions—Transactional data that are used in fair value measurement is usually dated months, and in some cases, years, prior to the date as of which an analyst may be making the measurement. In these situations, the analyst may need to consider changes in economic and industry-specific conditions between the time of the guideline transactions and the date of the fair value measurement.

  In some situations, the analyst may choose to adjust the transaction data, or disregard the data entirely, if the business and economic conditions have changed substantially since the time of the acquisitions.
- Stock Price and Volume Fluctuations Prior to Announcement—In some cases, the stock price and the trading volume of a publicly traded company can fluctuate significantly prior to announcement of the company's acquisition. The analyst should review this historical data to ensure that a proper equity foundation is used in the calculation of the implied acquisition premium.

  In some instances, it may be reasonable to estimate the implied acquisition premium based on the average trading price over a period of several days or weeks.
- Transaction Structure—Transaction structure can distort the reported price of a transaction. The analyst should make an attempt to understand the transaction structure and its impact on the transaction price prior to relying on a premium that is implied by the transaction.

"VFR Advisory #3 is intended to provide a general framework that results in reasonably consistent and reliable fair value measurements of controlling ownership interests in business enterprises."

- Transaction Process—The analyst should attempt to learn whether the company was sold through a robust sale process involving multiple potential buyers or whether there was a single potential acquirer.
- Transaction Status—Many transactions that are announced never close. The analyst should consider how much emphasis should be placed on the data of transactions that had not closed as of the fair value measurement date.

It may be impractical for the analyst to evaluate each of the above-described factors for all controlling interests transactions. Nonetheless, the list provides guidance an analyst should generally follow when deciding whether a transaction could be used for purposes of estimating an MPAP.

Ultimately, the analyst should evaluate the relevance of the transaction premium data by considering the comparability of the acquired companies to the subject company and whether the acquiror in each transaction is reasonably representative of a market participant.

While VFR Advisory #3 acknowledges that historical transaction premium data may be useful in fair value measurement, they caution that exclusive reliance on these data is not consistent with best practices.

VFR Advisory #3 also notes that any MPAP applied in an analysis or implied by an analysis should be the subject of a reasonableness check. The level of rigor of this reasonable check should be correlated with the level of influence that the subject MPAP has on the fair value measurement.

Summary

VFR Advisory #3 sets forth best practices for certain issues that an analyst may encounter in measuring the fair value of controlling interests in business enterprises for financial accounting purposes.

VFR Advisory #3 introduces the concept of the MPAP as the difference between (1) the pro rata fair value of a subject controlling ownership interest and (2) its foundation, which can be stated on either an equity or a total invested capital basis.

The underlying premise of VFR Advisory #3 is that the MPAP should not be based exclusively on historical change of control transaction premium data. Instead, the MPAP should be supported by expected economic benefits that would arise from:

1. enhanced cash flow and/or
2. lower required rates of return from a market participant's perspective.

VFR Advisory #3 describes various business-specific factors that may influence the magnitude of the MPAP as well as transaction-specific factors that should be considered when evaluating historical transaction premium data.

VFR Advisory #3 was developed to provide guidance regarding the fair value measurement for financial accounting. However, it is not an authoritative valuation standard that must be followed by analysts in all instances.

Instead, VFR Advisory #3 is intended to provide a general framework that results in reasonably consistent and reliable fair value measurements of controlling ownership interests in business enterprises.

Notes:

1. ASC topic 805, ASC topic 350, and ASC topic 820 are the successors to Financial Accounting Standards ("FAS") No. 141(R), FAS No. 142, and FAS No. 157, respectively.
2. The Appraisal Foundation previously issued two other documents that are meant to provide guidance on other valuation topics. The two previously issued documents are (1) Valuations in Financial Reporting Advisory #1, *The Identification of Contributory Assets and Calculation of Economic Rents* (2010) and (2) Valuations in Financial Reporting Advisory #2, *The Valuation of Customer Related Assets* (2016).
3. VFR Valuation Advisory #3: *The Measurement and Application of Market Participant Acquisition Premiums*, 10.
4. Ibid., 11.
5. Ibid.
6. Ibid., 15.
7. Ibid., 18.
8. Ibid., 28.

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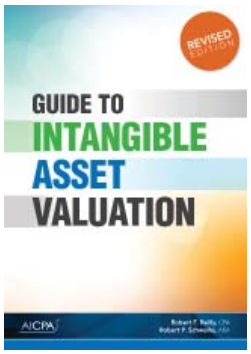
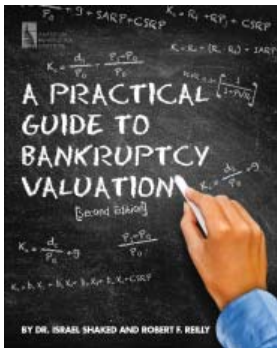
Valuation Textbooks Authored by Robert Reilly and Robert Schweihs





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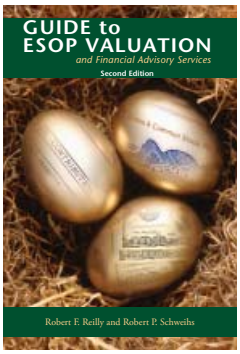

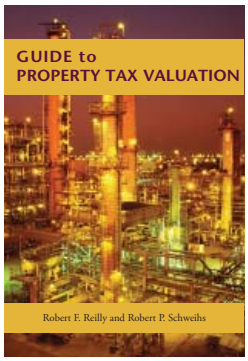

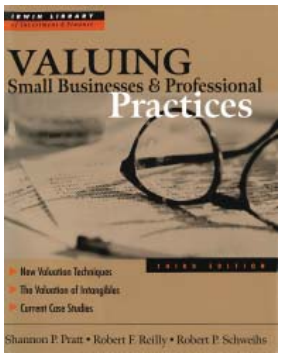

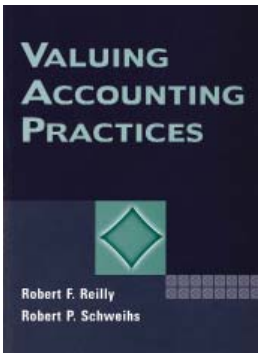

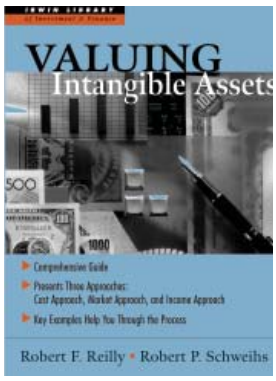

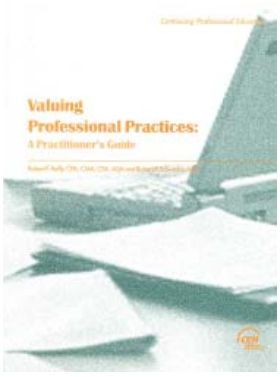

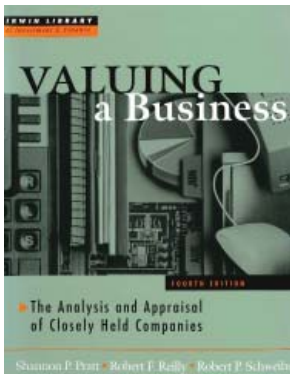

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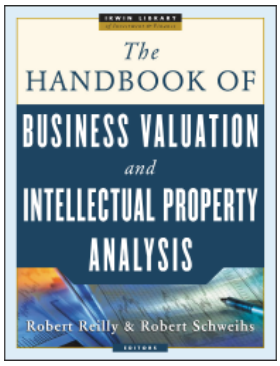

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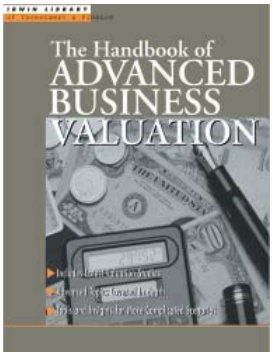

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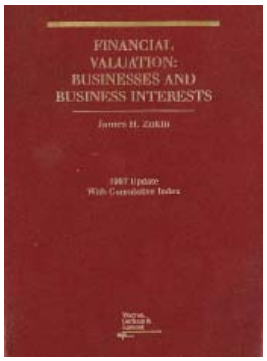

* Authored by Robert Reilly and Israel Shaked, Ph.D.
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Willamette Management Associates

FASB Accounting Standard Update Simplifies the Accounting for All Share-Based Payment Awards

Thomas M. Eichenblatt

This discussion provides a review of the recent changes to Financial Accounting Standards Board ("FASB") Accounting Standards Codification ("ASC") topic 718—Stock Compensation. Specifically, this discussion describes (1) the main changes to the ASC topic 718, (2) the context of these changes, and (3) why these changes were made.

Introduction

The Financial Accounting Standards Board ("FASB") released Accounting Standards Update ("ASU") 2018-07 in June of 2018 for Accounting Standards Codification ("ASC") topic 718—Stock Compensation ("Topic 718") of the U.S. generally accepted accounting principles ("GAAP").

FASB released this ASU as part of its ongoing simplification initiative to improve the usefulness of information provided to users of financial statements while reducing the cost and complexity associated with financial reporting.

FASB identified the need for amendments to Topic 718 via various methods of outreach to the creators and users of financial statements, which the FASB identifies as stakeholders.

The main focus of the ASU is to expand the scope of Topic 718 to include standards on the topic of accounting for nonemployee share-based payment transactions for acquiring goods and services.

Once these changes are implemented, Topic 718 will apply to all transactions in which a grantor acquires goods or services to be used or consumed in a grantor's own operations by issuing share-based payment awards.

Previously, Topic 718 only addressed share-based payments issued to employees. The amendments to this topic are not intended to change the practices for share-based payment awards granted to employees.[1]

Specifically, the ASU makes amendments to accounting standards in the following six areas:

1. Overall measurement objective
2. Measurement date
3. Awards with performance conditions
4. Classification reassessment of certain equity-classified awards
5. Calculated value
6. Intrinsic value

These amendments come into effect for public business entities for fiscal years beginning after December 15, 2018. For all other entities the amendments come into effect for fiscal years beginning after December 15, 2019.[2]

The main changes to the ASC will require an entity issuing nonemployee share-based payments to do the following:

1. Measure the nonemployee share-based payment transactions by estimating the fair value of the equity instruments that it is obligated to issue as payment
2. Measure equity-classified nonemployee share-based payment awards at the grant date
3. Consider the probability of satisfying performance conditions when accounting for nonemployee share-based payment awards with such conditions

Amendments to Topic 718 have replaced the word "employer" with "grantor" and the word "employee" with "grantee" throughout the text of Topic 718. Amendments have also removed references to employees throughout Topic 718 to allow Topic 718 to be applicable to both employee and nonemployee share-based payment transactions.

Under current GAAP guidance, standards for accounting for share-based payments to nonemployees are found in Subtopic 505-50, Equity – Equity-Based Payments to Nonemployees ("Subtopic 505-50"). The Amendments to Topic 718 are intended to supersede the guidance located in Subtopic 505-50 once they become effective.

The guidance in Topic 718 does not apply to transactions that involve equity instruments granted to a lender or investor that provides financing to the issuer, or transactions involving equity instruments granted in conjunction with selling goods or services to customers as part of a contract.[3]

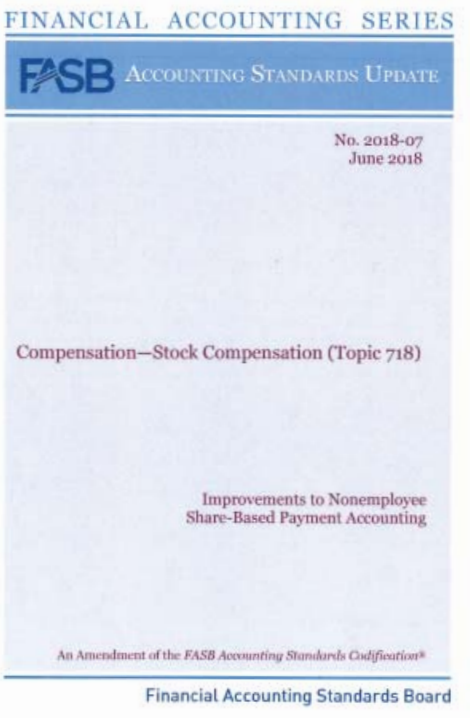
Basis for Amendment

Under current GAAP guidance, requirements for reporting nonemployee share-based payment transactions are significantly different from the requirements for employee share-based payment transactions.

Originally the differences in the accounting standards between employee and nonemployee share-based payment awards were due to the view that there is a fundamental difference between the relationship that employees and nonemployees have with the entity granting the awards.

There was a presumption that employees are more economically dependent on the entity granting the share-based payment awards than nonemployees. Therefore, the previous view was that employees are more likely to complete the required service than nonemployees.

This view also assumes that a nonemployee may have multiple opportunities for other compensation and may choose not to complete the required service if the fair value of the share-based payment award declined after the grant date or was no longer considered a sufficient incentive.



Recently, views have changed, and the FASB observed that stakeholders did not agree with the notion that there is a fundamental difference between the relationship that employees and nonemployees have with the entity granting awards.

The FASB found that stakeholders generally considered that the notion of economic dependency of employees to be overstated, noting that most employment arrangements are at will in most jurisdictions, which suggests that the employee's relationship with the employer is similar to that of a nonemployee.

The FASB identified the following observations to support the amendments to align the guidance for nonemployee and employee share-based payment awards:[4]

- In many instances, entities pay for services from nonemployees that are also provided by employees, with the only difference being that the nonemployee does not meet the technical definition of an employee.
- In many instances, the terms and conditions of share-based payment awards granted to nonemployees are the same as those granted to employees.
- The employee-employer relationship previously observed is likely overstated because most employment is at will and today's workforce often changes jobs.
- Stakeholders were generally unaware of instances of nonemployees deciding not to fulfill obligations, which suggests that there is not a high correlation between changes in share-based payment award value and changes in the nonemployee's decisions to perform under contract.

Summary of Amendments

As indicated earlier in this discussion, the ASU includes amendments to six identified areas. The following discussion summarizes each of the identified areas.

Amendment Area One: Overall Measurement Objective

Topic 718 requires that the cost resulting from all share-based payment transactions be recognized in the financial statements of the grantor, as of the grant date.

The measurement objective for accounting for share-based payment arrangements is fair value, and Topic 718 requires all entities to use a fair-value-based measurement method in accounting for share-based payment transactions, except for instruments held by employee stock ownership plans.

Under current GAAP, the overall measurement objective is for nonemployee share-based payment awards to be measured at the fair value of the consideration received, or the fair value of the equity instruments being issued, whichever could be more reliably measured.[5]

Amendments to Topic 718 are intended to more clearly define the measurement objective by including the consideration of the grant date and performance conditions associated with the awards.

Topic 718 states that when measuring the fair value of share-based payments to nonemployees, the measurement objective is to estimate the fair value at the grant date of the equity instruments that the entity is obligated to issue when the grantees have delivered the good or rendered the service and satisfied any other conditions necessary.

The estimate is to be based on the share price and other pertinent factors such as the following:

- The exercise price of the option
- The expected term of the option
- The current price of the underlying share
- The expected volatility of the price of the underlying share
- The expected dividends on the underlying share for the expected term of the option, and
- The risk-free interest rate(s) for the expected term of the option

It is important for an analyst to consider any restrictions or conditions inherent in the equity instruments awarded, such as the inability to transfer equity share options to third parties or the inability to sell shares for a period of time.

On an award-by-award basis, an entity may elect to use either the expected term or the contractual term when estimating the fair value of nonemployee awards.

The fair value measurement objective for liabilities incurred during a share-based payment transaction is the same as for equity instruments. However, awards classified as liabilities should be subsequently remeasured at the end of each reporting period until the liability is settled.[6]

Amendment Area Two: Measurement Date

Under current GAAP, the measurement date for nonemployee share-based payment awards is the earlier of:

1. the date at which a commitment for performance by the counterparty is reached or
2. the date at which the counterparty's performance is complete.

Amendments to Topic 718 state that nonemployee share-based payment awards are to be measured as of the grant date. The definition of the grant date is amended to generally be the date at which the grantor and the grantee reach a mutual understanding of the key terms and conditions of a share-based payment award.

The grantor becomes contingently obligated on the grant date to issue equity instruments or transfer assets to a grantee who delivers goods or renders services. Any awards that are subject to shareholder approval are not deemed to be granted until that approval is obtained.

Along with requiring the applicable approvals, a mutual understanding of the grant date should meet the following conditions:

- The award is a unilateral grant and, therefore, the recipient does not have the ability to negotiate the key terms and conditions of the award with the grantor.
- The key terms and conditions of the award are expected to be communicated to an individual recipient within a relatively short time period from the date of approval.

The terms and conditions of the share-based compensation arrangement may be established via (1) a formal, written agreement; (2) an informal, oral agreement; or (3) an entity's past practice.[7]

Amendment Area Three: Awards with Performance Conditions

The current GAAP measures require nonemployee share-based payment awards with performance conditions to be measured at the *lowest aggregate fair value*. Lowest aggregate fair value does not require the consideration of the probability of resolving performance conditions. Therefore, a remote chance of nonperformance can result in a lowest aggregate fair value of $0, which delays the recognition of the compensation cost until performance completion.

Stakeholders found this guidance to be counterintuitive because it is inconsistent with the guidance for attribution of compensation cost in Subtopic 505-50 for nonemployee share-based payment transactions.

In situations where the lowest aggregate fair value was $0, many stakeholders stated that if it was paying cash, it would likely recognize an expense on the basis of whether the outflow was probable.[8]

A performance condition is defined as any condition that affects the vesting, exercisability, exercise price, or other pertinent factors used in determining the fair value of an award that relates to both of the following:

1. Rendering service or delivering goods for a specified period of time
2. Achieving a specified performance target that is defined solely by reference to the grantor's own operations or by reference to the grantee's performance related to the grantor's own operations.

Examples of performance conditions include attaining a specified growth rate, obtaining regulatory approval, or raising a certain amount of capital. Performance conditions can also be based on comparable companies or financial indexes.[9]

Amendments to Topic 718 align the measures for accounting for both employee and nonemployee share-based payment awards. This is accomplished by requiring entities to consider the probability of satisfying performance conditions when issuing nonemployee share-based payment awards.

Amendment Area Four: Classification Reassessment of Certain Equity-Classified Awards

The classification of share-based payments to nonemployees is currently subject to multiple GAAP measures after the goods or services have been rendered, which requires the reassessment of the classification of the award after they are vested (i.e., earned) even when no further performance

is required. This causes some nonemployee share-based payment awards that are initially classified as equity to be reclassified as a liability after they have vested.

Amendments to Topic 718 will simplify the guidance and only require share-based payment awards to nonemployees to be reassessed after they have been vested if they have been modified after vesting. This change was made to align the guidance for employee and nonemployee share-based payment awards.[10]

Amendment Area Five: Calculated Value

Current GAAP guidance states that, when calculating the value of equity share options to nonemployees for nonpublic entities, an estimate of the expected volatility should be included.

This area of Topic 718 is amended because a nonpublic entity may not be able to reasonably estimate the expected volatility of its share price. In this situation, a nonpublic entity is encouraged to calculate the value of nonemployee equity share options using the historical volatility of an appropriate industry sector index instead of the expected volatility of the nonpublic entity's share price.

The amended Topic 718 states that a nonpublic entity's use of calculated value shall be consistent between employee and nonemployee share-based payment transactions.

A nonpublic entity is expected to disclose the reasons why it is not practicable for it to estimate the expected volatility of its share price, the appropriate industry sector index that it selects, the reasons for selecting that index, and the method for calculating volatility using that index.[11]

Amendment Area Six: Intrinsic Value

Current GAAP guidelines state that nonpublic entities are required to measure liability-classified nonemployee share-based payment awards at fair value. The amendments to Topic 718 state that nonpublic entities can make a one-time election to switch from measuring liability-classified nonemployee share-based payment awards at fair value to intrinsic value.

The amendments state that, regardless of the election, liability-classified awards would be subject to remeasurement until they are exercised.[12]

Conclusion

Due to recent changes in the viewpoints of the users and creators of financial statements, FASB has deemed it necessary to amend the current GAAP guidance on share-based payment awards to nonemployees.

FASB now considers employee and nonemployee share-based payment awards economically similar enough to apply the same guidance when accounting for such payments in financial statements. Aligning the accounting requirements for employee and nonemployee share-based payment transactions is intended to reduce the cost and complexity associated with financial accounting.

Amendments to Topic 718 expand and clarify guidelines regarding the measurement objective, measurement date, performance conditions, classification, calculated value, and intrinsic value regarding share-based payment awards.

These amendments come into effect for public business entities for fiscal years beginning after December 15, 2018. For all other entities the amendments come into effect for fiscal years beginning after December 15, 2019.

When these amendments become effective, share-based payment awards issued to nonemployees will be measured on the grant date instead of the current requirement to remeasure the awards through the performance completion date.

Amendments will also align the accounting for performance conditions in that compensation cost associated with the award will be recognized when the completion of the performance condition is probable, rather than when the performance condition is achieved.

Notes:

1. Financial Accounting Standards Board, Accounting Standards Update 2018-07: Compensation—Stock Compensation (Topic 718), Improvements to Nonemployee Share-Based Payment Accounting (June 2018).
2. Ibid., 2–4.
3. Ibid., 5.
4. Ibid., 173–174.
5. Ibid., 5.
6. Ibid., 32–34.
7. Ibid., 27.
8. Ibid., 176.
9. Ibid., 8.
10. Ibid., 3.
11. Ibid., 35.
12. Ibid., 71.

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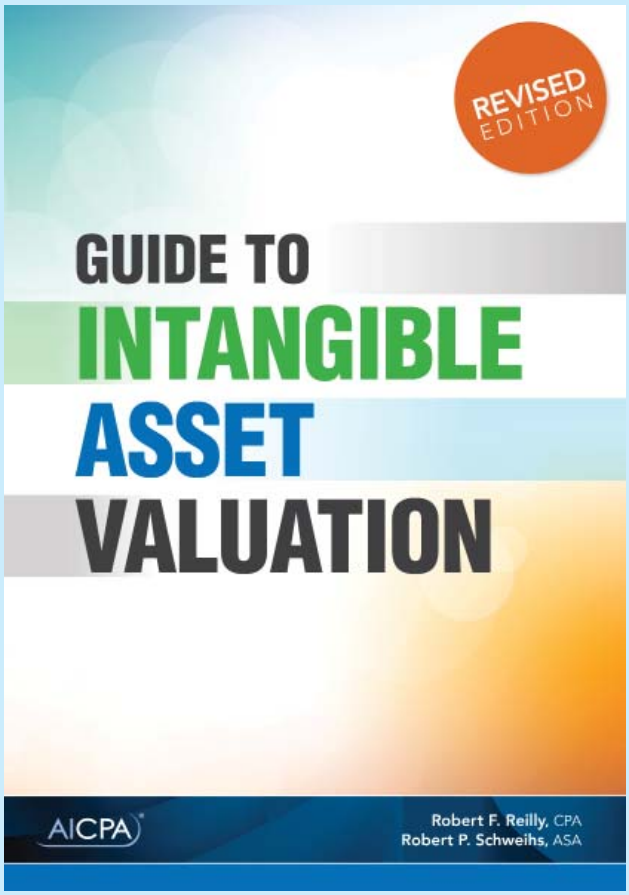
Guide to Intangible Asset Valuation

by Robert F. Reilly and Robert P. Schweihs



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Illustrative examples are provided throughout the book, and detailed examples are presented for each generally accepted (cost, market, and income) valuation approach.

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- Litigation counsel involved in tort or breach of contract matters
- Intellectual property counsel
- International tax practitioners
- Property tax practitioners
- Auditors and accountants
- Valuation analysts
- Licensing executives
- Multinational corporation executives
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Guide to Intangible Asset Valuation

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Fair Value Valuation of Identifiable Intangible Assets in the Acquisition Accounting of a Business Combination

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Financial Accounting Standards Board ("FASB") Accounting Standards Codification ("ASC") topic 805 provides U.S. generally accepted accounting principles ("GAAP") guidance with regard to the acquisition accounting for business combinations. One important consideration within the application of acquisition accounting is the fair value valuation of the acquired identifiable intangible assets. This discussion provides practical guidance with regard to the recognition of—and the fair value valuation of—identifiable intangible assets within the context of a business combination. This discussion provides illustrative examples of the fair value valuation of several identifiable intangible assets. And, this discussion provides valuation analyst caveats with regard to the development of, the work paper documentation of, and the valuation reporting for acquisition accounting fair value valuations.

Introduction

The Financial Accounting Standards Board ("FASB") Accounting Standards Codification ("ASC") topic 805 provides U.S. generally accepted accounting principles ("GAAP") guidance related to business combinations. ASC 805 provides GAAP guidance related to the accounting for—and the reporting of—transactions that represent a business combination that should be recorded using the acquisition method of accounting.

The acquisition method of accounting is described in ASC 805-10-05-4. A business combination is defined in ASC 805-10-20 as "A transaction or other event in which an acquirer obtains control of one or more businesses. Transactions sometimes referred to as true mergers or mergers of equals are also business combinations."

ASC 805 provides the requirements for how the acquirer in a business combination accomplishes the following financial reporting objectives:

1. Recognizing and measuring (a) the identifiable intangible assets acquired, (b) the liabilities assumed, and (c) any noncontrolling interest in the acquiree entity
2. Recognizing and measuring either (a) the goodwill acquired in the business combination or (b) any gain from a bargain purchase in the business combination
3. Determining what information to disclose to allow its financial statement users to evaluate the nature of—and the financial effect of—the business combination

The specific subtopics encompassed in ASC 805 include the following:

1. Overall (general acquisition accounting method guidance)
2. Identifiable assets and liabilities and any controlling interest
3. Goodwill or gain from a bargain purchase, including the consideration transferred
4. Reverse acquisitions

5. Related issues
6. Income taxes

Under ASC 805, the corporate acquirer accounts for a business combination under what is called the acquisition method of accounting. The experienced valuation analyst ("analyst") may recall the now-obsolete GAAP term "purchase method" of accounting. Several years ago the FASB changed the previous terminology of "purchase method" (and the FASB also changed many of the technical accounting procedures) to the current terminology of "acquisition method."

The reason for this terminology change was to emphasize that, under ASC 805, a business combination transaction can occur even when a merger or acquisition purchase transaction is not involved.

This discussion focuses on the fair value valuation of identifiable intangible assets related to a business combination for acquisition accounting purposes. That is, this discussion summarizes the analyst considerations with regard to performing, developing, documenting, and reporting the fair value valuation of acquired identifiable intangible assets.

This discussion concludes with recommended analyst caveats related to the development of—and the reporting of—fair value valuations of the identifiable intangible assets acquired in a business combination.

Identifiable Intangible Assets

Under ASC 805, an acquirer will recognize separately from goodwill the identifiable intangible assets acquired in a business combination. An intangible asset is considered to be identifiable if it meets either the separability criterion or the contractual-legal criterion of ASC 805-20-55.

For acquisition accounting purposes, an intangible asset is considered to be identifiable if it meets either of the following two ASC 805-20-55-2 criteria:

- The intangible asset is separable, that is, capable of being separated or divided from the entity that holds it and sold, transferred, licensed, rented, or exchanged, either individually or together with a related contract, identifiable asset, or liability, regardless of whether the acquirer intends to do so.
- The intangible asset arises from contractual or other legal rights, regardless of whether those rights are transferable or separable from the acquiree or from other rights and obligations of the acquiree.

These two criteria for identifiable intangible assets are called:

1. the separability criterion and
2. the legal/contractual criterion.

Categories of Identifiable Intangible Assets

ASC 805-20-55 provides a list of intangible assets that the FASB considers to have the characteristics to meet at least one of the two above-listed criteria to be an identifiable intangible asset.

The following list provides the ASC 805-20-55-13 categories of identifiable intangible assets:

- Marketing-related intangible assets
- Customer-related intangible assets
- Artistic intangible assets
- Contract-related intangible assets
- Technology-related intangible assets

According to ASC 805, goodwill is also an intangible asset. However, the FASB has determined that goodwill is not considered to be an identifiable intangible asset. Therefore, acquired goodwill is not valued. Rather, acquired goodwill is measured.

Marketing-Related Intangible Assets

ASC 805-20-55-14 through 19 provide the following examples of marketing-related intangible assets:

- Newspaper mastheads
- Trademarks, service marks, trade names, collective marks, and certification marks
- Trade dress
- Internet domain names
- Noncompetition agreements

Customer-Related Intangible Assets

ASC 805-20-55-20 through 28 provide the following examples of customer-related intangible assets:

- Customer lists
- Customer contracts and related customer relationships
- Noncontractual customer relationships
- Order or production backlogs

Artistic-Related Intangible Assets

ASC 805-20-55-29 provides the following examples of artistic-related intangible assets:

- Plays, operas, ballets
- Books, magazines, newspaper, and other literary works
- Musical works such as composition, song lyrics, and advertising jingles
- Photographs, drawings, and clip art
- Audiovisual material including motion pictures, music videos, television programs

Contract-Related Intangible Assets

ASC 805-20-55-31 through 37 provide the following examples of contract-based intangible assets:

- License, royalty, standstill agreements
- Advertising contracts
- Lease agreements
- Construction permits
- Construction contracts
- Construction management, service, or supply contracts
- Broadcast rights
- Franchise rights
- Operating rights
- Use rights
- Servicing contracts
- Employment contracts

Technology-Related Intangible Assets

ASC 805-20-55-38 provides the following examples of technology-based intangible assets:

- Patented or copyright software
- Mask works
- Unpatented technology
- Databases
- Trade secrets

Defining the Intangible Asset Valuation Assignment

Documenting the analyst's understanding of the assignment is an important procedure in the intangible asset fair value valuation. As indicated in the Mandatory Performance Framework ("MPF"), there are two components to the intangible asset fair value valuation assignment:

- The objective of the analysis
- The purpose of the analysis

Each of these two assignment components are summarized below.

The Objective of the Valuation Analysis

As indicated in the MPF, the objective of the analysis describes what the intangible asset valuation is intended to do. The objective of the valuation analysis describes the following:

- The specific intangible asset(s) that is (are) the subject of the valuation
- The ownership interest (or the bundle of legal rights) that is the subject of the valuation
- The standard of value and the premise of value being estimated
- The "as of" acquisition date or valuation date

ASC 820, Fair Value Measurements, provides a definition of fair value. ASC 820 also provides a conceptual framework—and practical guidance—for the measurement of fair value.

ASC 820-10-20 defines the fair value standard of 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 as of the measurement date.

The Purpose of the Valuation Analysis

As indicated in the MPF, the purpose of the fair value valuation analysis describes the following:

- The audience for the intangible asset valuation (i.e., the party or parties who will rely on the valuation analysis and the value conclusion)
- The decision (if any) that will be influenced by the analysis results

The purpose of the valuation analysis also indicates the following:

- Why the intangible asset valuation is being performed
- The intended use(s) of the intangible asset valuation

- Who is expected to (and permitted to) rely on the results of the intangible asset valuation

Bundles of Legal Rights

In a business combination, the intangible asset ownership interest transferred is not always a fee simple interest. The acquiree may not own the total bundle of legal rights related to the transferred intangible asset, or the acquiree may not have transferred the entire bundle of legal rights to the acquirer. Therefore, the analyst should consider (and document in the assignment understanding) what bundle of legal rights is encompassed in the intangible asset fair value valuation.

Some of the alternative intangible asset legal rights that may be transferred (and, therefore, subject to valuation) include the following:

- Fee simple interest
- Life interest or estate
- Term interest or estate
- Licensor/franchisor interest
- Licensee/franchisee interest
- Sublicense interest
- Reversionary interest
- Development rights
- Exploitation rights
- Use rights
- Other contractual rights

Data Gathering and Due Diligence

Even though fair value contemplates a transfer between market participants, the analyst typically gathers and analyzes information related to the current intangible asset owner/operator.

Such information may typically include the following:

- The owner/operator historical and prospective financial statements
- The owner/operator historical and prospective intangible asset development/maintenance costs
- The owner/operator current and expected total production resource/capacity constraints

As one part of the fair value analysis, the analyst typically describes and quantifies the intangible asset economic benefits to the current owner/operator.

Examples of such economic benefits include the following:

- Associated revenue increase (e.g., related product unit price/volume, market size/position)
- Associated expense decrease (e.g., expense related to product returns; cost of goods sold; selling, general, and administrative; research and development)
- Associated investment decrease (e.g., inventory, capital expenditures)
- Associated risk decrease (existence of intangible asset licenses/contracts, decrease in the cost of capital components)

In the above list of factors, the word "associated" means the economic benefits that can be associated with—or attributed to—the subject intangible asset.

In addition, the analyst typically performs an assessment of the intangible asset impact on the owner/operator strategic position. That is, the analyst typically considers the impact of the intangible asset on the owner/operator's SWOT (strengths, weaknesses, opportunities, and threats).

Market Participant/Market Potential

In addition to assessing the economic benefit to the current owner/operator, the analyst typically considers the intangible asset market potential outside of the current owner/operator—that is, to the market participant.

In this assessment of the intangible asset economic benefit to the market participant, the analyst typically considers the following factors:

- Change in the market definition or the market size for the intangible asset to an alternative (market participant) owner/user
- Change in the alternative/competitive uses of the intangible asset to an alternative (market participant) owner/user
- The subject intangible asset's ability to create inbound or outbound license opportunities to an alternative (market participant) owner/user

The analyst typically considers whether the current owner (or a market participant) can both:

1. operate the identifiable intangible asset in the acquired entity and also
2. outbound license the identifiable intangible asset (for use in different products, different markets, different territories, etc.).

Analyst's Review of Financial Projections

As indicated in the MPF, the analyst typically reviews and challenges (1) any owner/operator-prepared financial projections and (2) any owner/operator-prepared measures of intangible asset economic benefits.

These due diligence procedures typically apply to any financial projections prepared by either:

1. the acquiree company management or
2. the acquirer company management.

As part of the prospective financial information due diligence process, the analyst typically performs the following benchmark analyses:

- Compare any owner/operator-prepared prior financial projections to the owner/operator's prior actual results of operations
- Compare any owner/operator-prepared projections to the owner/operator's current capacity constraints
- Compare any owner/operator-prepared financial projections to the current total market size (for the market in which the intangible asset owner operates)
- Consider any published industry data related to average comparable profit margin ("CPM") for other companies that participate in the intangible asset owner's industry
- Consider any published data related to the CPM of guideline publicly traded companies that participate in the intangible asset owner's industry
- Consider the quality and quantity of available intangible asset license data; these data could relate to the inbound or outbound license of the subject intangible asset or these data could relate to the arm's-length use licenses of comparable uncontrolled transaction ("CUT") intangible assets
- Perform a useful economic life ("UEL") analysis, with consideration of the following factors:
  - Any legal/statutory life indications
  - Any contract/license life indications
  - Any technology obsolescence life issues
  - Any economic obsolescence life issues
  - The lives of any prior generations of the subject intangible asset
  - The current position of the subject intangible asset in its life cycle

ASC 805 pays particular attention to the estimation of the identifiable intangible asset UEL. This is because that UEL directly or indirectly affects the valuation of the intangible asset in each of the three generally accepted intangible asset valuation approaches (described below). In addition, the UEL affects the amortization period for intangible assets with a determinable UEL.

Intangible Asset Valuation Approaches and Methods

There are three generally accepted intangible asset valuation approaches: the cost approach, the market approach, and the income approach.

There are a number of generally accepted valuation methods within each intangible asset valuation approach. Each of the methods within an approach are based on common economic principles.

There are a number of valuation procedures that are used to apply each intangible asset valuation method. The valuation procedures are performed in order for the analyst to select and apply the individual valuation variables that are needed to complete the valuation method.

The various fair-value-related ASC topics often use the term "valuation techniques." The term "techniques" is not often used in the valuation literature outside of the discipline of GAAP-related fair value valuations. However, analysts should understand that the ASC term "valuation techniques" is analogous to the more common term "valuation approaches."

The following list of valuation approaches and methods uses the terminology and the categorization included in both ASC 820 and the MPF. Some of the valuation method titles and categories used for fair value accounting purposes may be slightly different than the titles that analysts would use for other valuation purposes.

For example, ASC 820 and the MPF categorize the greenfield method as an income approach valuation method. Most non-GAAP-related valuation literature would categorize the greenfield method as a cost approach valuation method. This is because the greenfield method quantifies the opportunity

cost to the intangible asset owner/operator to recreate an intangible asset if the owner/operator did not already own the subject intangible asset.

The greenfield method is often used for such contract-related intangible assets as licenses, permits, franchises, and certificates of need. The principal opportunity cost to the owner/operator is that entity's lost income during the intangible asset recreation period.

However, these naming convention issues—such as whether the greenfield method is a cost approach method or an income approach method—are mainly semantic. These naming convention issues should not influence the value conclusion reached by the application of the particular intangible asset valuation method.

A detailed description of the generally accepted valuation approaches and methods is beyond the scope of this discussion. However, Exhibit 1 provides a list of the generally accepted intangible asset valuation approaches and methods.

The analyst should consider all generally accepted valuation approaches and methods in the fair value valuation of each identifiable intangible asset included in the business combination.

Exhibit 1
Identifiable Intangible Assets
Generally Accepted Valuation Approaches and Methods

Cost Approach Methods
- Reproduction cost new less depreciation ("RPCNLD") method
- Replacement cost new less depreciation ("RCNLD") method
- Trended original cost less depreciation ("TOCLD") method

Market Approach Methods
- Relief from royalty ("RFR") method
- Comparable uncontrolled transactions ("CUT") method
- Comparable profit margin ("CPM") method

Income Approach Methods
- Differential income (with/without) method
- Incremental income method
- Greenfield method
- Profit split method (or residual profit split method)
- Disaggregated method
- Distributor method
- Residual (excess) income method
- Capitalized excess earnings method ("CEEM")
- Multiperiod excess earnings method ("MEEM")

As recommended in the MPF, the analyst should document the thought process related to the selection of—and the rejection of—each valuation approach and method selected (or not selected). The analyst should document that selection (and rejection) criterion both (1) in the fair value valuation work papers and (2) in the fair value valuation report.

Cost Approach Valuation Considerations

Some identifiable intangible assets lend themselves to cost approach valuation analyses. The following analyst considerations should be documented in both the fair value valuation work papers and the fair value valuation report.

All cost approach methods include both (1) a current cost measurement and (2) a depreciation measurement.

The analyst should explain and document his or her consideration of the following four cost components in the cost approach analysis:

- Direct costs (including direct materials and direct labor)
- Indirect costs (including development-related overhead and administrative expenses)
- Developer's profit (on the sum of the direct costs and the indirect costs)
- Entrepreneurial incentive (that is, the opportunity cost—or the owner/operator's lost income—during the intangible asset estimated replacement period)

The analyst should also explain and document his or her consideration of the following three depreciation components in the cost approach analysis:

- Physical depreciation (not a significant factor in most intangible asset valuations)
- Functional/technological obsolescence (where the analyst considers the intangible asset's estimated UEL)
- Economic/external obsolescence (where the analyst considers the intangible asset owner/operator's return on investment—or ROI—related to the intangible asset cost approach value indication)

In the acquisition accounting valuation, the analyst should explain and document his or her application of the following cost approach valuation formula:

	Current cost measurement
less:	Physical depreciation (if any)
less:	Functional obsolescence
less:	Technological obsolescence (if quantified separately from functional obsolescence)
less:	Economic obsolescence (a component of external obsolescence)
equals:	Intangible asset fair value indication

In addition, the analyst should consider the following cost approach factors:

- All cost components (including the opportunity cost component) included in the current cost measurement
- The treatment of any excess capital (i.e., related to the intangible asset development) costs and any excess operating costs (related to the operation of the intangible asset)
- All considerations of (and estimation of) the intangible asset's UEL
- All considerations of (and estimation of) economic obsolescence that may exist at the intangible asset owner/operator entity level

Market Approach Valuation Considerations

The analyst should be aware that market approach valuation pricing metrics are based on either comparable or guideline:

- licenses of intangible assets,
- sales of intangible assets, or
- companies that use intangible assets.

The fair value valuation should explain and document the analyst's consideration of—and selection/rejection of—the following market approach valuation variables and valuation procedures:

- Any quantitative/qualitative analysis with regard to the ownership and operation of the intangible asset
- The guideline license/sale/company selection criteria
- The actual guideline license/sale/company selection (and rejection)
- The verification of the selected guideline transactional data
- The analysis of the selected guideline transactional data
- The selection of the appropriate pricing metrics to use in the subject market approach analysis
- The selection of the specific pricing multiples to apply to the subject intangible asset financial or operational fundamentals
- The actual application of the selected pricing multiples to the subject intangible asset's financial or operational metrics
- The conclusion of the various market approach value indications based on the application of the subject-specific pricing multiples

In the acquisition accounting valuation, the analyst should consider and document the following acquisition accounting market approach valuation considerations:

- The impact of applying seasoned guideline intangible asset transactional data with regard to a development stage identifiable intangible asset
- The impact of applying development stage guideline intangible asset transactional data with regard to a seasoned identifiable intangible asset
- The state of the competition in the owner/operator industry as of the valuation date
- The analysis of the guideline company and/or industry average comparable profit margins; the important valuation consideration follows: Is the identifiable intangible asset the only reason for the difference in the operating profit margins between (1) the intangible asset owner/operator company and (2) the analyst's selected CPM companies?

Income Approach Valuation Considerations

Some identifiable intangible assets lend themselves to income approach valuation analyses. The following analyst considerations should be documented in both the fair value valuation work papers and the fair value valuation report.

The analyst should be aware that, in the intangible asset income approach, the common income measurement concepts include the following:

- Incremental (or differential) owner/operator revenue (selling price and/or units sold)
- Decremental owner/operator expense (operating or other)
- Decremental owner/operator investment (capital or other)
- Decremental risk to the owner/operator (resulting in a lower discount rate)
- A split of the owner/operator overall business enterprise income
- Any excess owner/operator overall business enterprise income

Some of the common income measures (related to the identifiable intangible asset) that may be used in the income approach analysis include the following:

- Earnings before interest, taxes, depreciation, and amortization ("EBITDA")
- Earnings before interest and taxes ("EBIT")
- Net operating income ("NOI") (EBITDA less income taxes)
- Net income
- Net cash flow

The analyst should associate the above-mentioned income concepts and income measures to the identifiable intangible asset. That is, the income approach valuation should incorporate only the income associated with the ownership of—or the operation of—the identifiable intangible asset. The fair value valuation report (and the valuation work papers) should explain how the analyst allocated, split, or otherwise associated the intangible-asset-related portion of the owner/operator income to the identifiable intangible asset subject to valuation.

The fair value valuation report (and the valuation work papers) should explain the analyst's selection of the particular income approach valuation formula to use in the analysis. That is, the fair value valuation report should explain which of the following valuation methods and procedures were used (and why they were used):

1. Yield capitalization methods, based on a nonconstant expected growth rate in the intangible asset income projection
   a. with the income projected over a finite intangible asset UEL income projection period (without a terminal value) or
   b. with the income projected over a finite intangible asset UEL income projection period with a terminal value
2. Direct capitalization methods, based on a constant expected growth rate in the intangible asset income projection
   a. with the intangible-asset-related income capitalized over a finite UEL projection period or
   b. with the intangible-asset-related income capitalized over a perpetuity UEL projection period

For each of the above-mentioned income approach valuation methods, the estimation of the intangible asset UEL is an important part of the fair value valuation. The estimated UEL affects the income approach valuation analysis and value conclusion. And, the estimated UEL affects the amortization period for the identifiable intangible asset, after it is recorded in the acquisition accounting.

As will be further explained below, the analyst should explain two components of the UEL estimation.

The first component is the term of the UEL—for example, the number of years of remaining useful life in the income projection. The second component is the rate of income decay over the UEL. This factor relates to the slope of the intangible asset income decay curve.

That is, will the intangible asset income remain constant over the UEL? Will the intangible asset income decline over the UEL? Will that future income decrease occur at a constant rate of change—or at a nonconstant (accelerating) rate of change?

The analyst should decide and document the following income approach valuation considerations in the acquisition accounting analysis:

- How the analysis matched the selected discount/capitalization rate with the selected intangible asset income measure
- How the analysis matched the selected discount/capitalization rate with the subject intangible asset level of risk
- How the analyst considered the valuation date state of the competition in the owner/operator industry
- How the analysis considered all subsequent (to the valuation date) capital expenditures, R&D expenses, marketing expenditures, etc., related to the intangible asset ownership/operation
- How the fair value valuation analyzed only the amount of income that is directly related

to (or associated with) the subject intangible asset

- How the fair value valuation present valued the projected income either:
  - over the intangible asset average UEL or
  - down the intangible asset UEL income decay curve.

In both the fair value valuation report and fair value valuation work papers, the analyst should explain and document the decision process with regard to (1) the selection of the length of the intangible asset UEL period and (2) the selection of the shape of the intangible asset UEL decay curve.

Income Approach Tax Amortization Benefit Adjustment

The analyst's decision to apply a tax amortization benefit ("TAB") adjustment to the income approach analysis may have a material impact on the intangible asset fair value conclusion. Both ASC 820 and the MFP discuss the valuation considerations with respect to the TAB in an intangible asset income approach analysis. The analyst should ensure that the fair value valuation report (and the fair value valuation work papers) adequately discuss the analyst's TAB considerations.

For federal income tax purposes in the U.S., taxpayers may amortize the cost of many purchased intangible assets over the Internal Revenue Code Section 197 15-year allowed amortization period. In the intangible asset income approach valuation method analysis:

1. the intangible asset value amortization expense is typically recognized as a noncash expense that occurs before the measurement of pretax income and
2. the amortization expense is typically added back to the income projection as a noncash expense after the projected income tax expense line in the income approach analysis.

Alternatively, this incremental effect on the income approach value indication may be recognized by the use of a so-called tax amortization benefit factor. The TAB factor is typically added as a value increment adjustment to the unadjusted income approach value indication.

This TAB factor is often measured using the following formula:

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

In the typical application of the TAB formula in the income approach valuation analysis:

- the income tax rate is the effective income tax rate that is otherwise used in the unadjusted income approach projection
- the amortization period is always the Section 197 statutory 15-year period
- the PVAF is the present value of an annuity factor for 15 years at the present value discount rate that is otherwise used in the unadjusted income approach valuation analysis

The following example provides a simple illustration of the application of the TAB adjustment in a typical intangible asset income approach analysis:

Illustrative Example 1
Income Approach Valuation Analysis
Application of the TAB Adjustment

Illustrative Example Valuation Variables:

Intangible Asset Income Approach Unadjusted Value Indication – $100,000,000

Owner/Operator Effective Income Tax Rate Used in the Unadjusted Analysis – 40%

Selected Present Value Discount Rate – 20%

TAB Factor Calculation:

$$TAB\ Factor = \frac{1}{1 - \left(\frac{40\%}{15\ years}\right)(4.6755)}$$

TAB Factor = 1.1424

This TAB factor results in an approximately 14 percent value adjustment—or value increment—to the unadjusted intangible asset income approach value indication.

Illustrative Example 1 (Continued)
Illustrative TAB Adjustment Factor Application
Fair Value Conclusion

Application of TAB Factor to the Income Approach:

Unadjusted Income Approach Value Indication × TAB Adjustment Factor =

Intangible Asset Fair Value Indication

$100,000,000 Unadjusted Value × 1.1424 TAB = $114,000,000 Fair Value (rounded)

The analyst should note that not all identifiable intangible assets qualify as Section 197 amortizable intangible assets. And, not all identifiable intangible assets are subject to the TAB adjustment in the income approach valuation analysis.

The analyst should also note that not all acquisition transactions are taxable (i.e., tax basis adjustment) acquisitions. However, under the acquisition accounting principles, the TAB adjustment may be applicable even if the amortizable tax basis of the transferred assets may not change in the hands of the new owner/market participant.

Also, the analyst should note that not all national taxing jurisdictions allow for the amortization of acquired intangible assets. That is, in international business combinations, there may be no equivalent to Section 197 in the local county income tax laws.

The analyst should consider (and document) all of the issues related to the TAB adjustment in the income approach valuation analyses.

Valuation Synthesis and Conclusion

The analyst should explain (and document) the acquisition accounting valuation synthesis and conclusion process. The synthesis and conclusion is the last procedure in the analyst's process of reaching a fair value conclusion.

In the valuation synthesis and conclusion, the analyst typically performs a procedure that is often referred to as the valuation reconciliation. In this reconciliation, the analyst reviews all of the intangible asset valuation analyses and the various intangible asset value indications.

The analyst typically assigns either a quantitative or a qualitative weighting to each value indication. Based on the results of this valuation reconciliation, the analyst selects the final intangible asset value conclusion.

As part of this fair value valuation synthesis and conclusion process, the analyst typically asks—and answers—the following questions:

- Did I value the right thing? That is, did I analyze the correct intangible asset—and the correct ownership interest?
- Did I value the right thing the right way? That is, did I apply the appropriate valuation approaches, methods, and procedures in order to reach a fair value conclusion?
- Did I reach the right valuation conclusion? That is, did I correctly apply the valuation procedures that I performed in order to reach a reasonable and supportable fair value estimate?
- Did I do what I intended to do? That is, did I perform the assignment that I set out to perform? Did I achieve the stated purpose and objective of the fair value valuation assignment?

In particular, the MPF emphasizes the importance of the analyst's documentation of these considerations in the fair value valuation work papers.

The previous discussions summarized many of the analyst's considerations in the identifiable intangible asset valuation. The following discussions present illustrative examples of typical income approach, market approach, and cost approach intangible asset fair value valuations.

These fair value valuation analyses are presented for illustrative purposes only. They are not presented as a template for the application of these identifiable intangible asset valuation analyses.

Income Approach Illustrative Example

This illustrative example summarizes an income approach valuation analysis of an acquired customer relationships identifiable intangible asset. In this example, let's assume that the Alpha Telecommunications Company ("Alpha") stock was acquired by Acquiror Telecom Company. The valuation date is January 1, 2017.

The Alpha recurring customer relationships are an important intangible asset for the acquiree company.

The stock acquisition transaction will be accounted for as a business combination under the acquisition accounting provisions of ASC 805. Accordingly, fair value is the appropriate standard of value for this intangible asset valuation. Based on the analyst's

highest and best use ("HABU") analysis, value in continued use is the appropriate premise of value for this intangible asset valuation.

Alpha serves both residential customers (about two-thirds of the Alpha revenue is generated by residential customers) and commercial customers (about one-third of the Alpha revenue is generated by commercial customers).

This illustrative example presents the valuation of the residential customer relationships. The valuation of the acquired commercial customer relationship would follow a similar methodology. Of course, the selected valuation variables will be different for the two categories of Alpha customer relationships.

Alpha retained an analyst to estimate the fair value of its customer relationship intangible asset as of the January 1, 2017, valuation date. The analyst decided to use the income approach and the multiperiod excess earnings method ("MEEM") to value this identifiable intangible asset. This decision regarding the selection of the valuation approach and the valuation method should be supported in the valuation report and in the valuation work papers.

To simplify this example, let's assume that the analyst has already valued the Alpha contributory working capital assets, contributory tangible assets, and the following contributory intangible assets: computer software, proprietary technology, trademarks and trade names, and the trained and assembled workforce.

Let's assume that the analyst performed—and documented—a rigorous due diligence process. Based on that due diligence, the analyst selected the valuation variables listed in Exhibit 2.

Exhibit 3 summarizes the analyst's income approach multiperiod excess earnings method valuation analysis of the Alpha customer relationships intangible asset.

Exhibit 4 presents the supporting detail for the analyst's assessment of the Alpha residential customer relationships historical turnover (also called customer "churn") rate.

Exhibit 5 presents the analyst's assessment of the operating profit margin valuation variable. The analyst considered this historical profit margin related to the Alpha residential customers. Then, the analyst normalized this historical operating profit margin to remove the selling expenses specifically related to the solicitation of new residential customers.

Exhibit 6 summarizes the analyst's projections of depreciation and amortization expense and of capital expenditures with regard to the Alpha residential customer-related revenue These projections were based on the analyst's assessment of the Alpha historical relationships on these financial fundamentals.

Exhibit 7 summarizes the analyst's projections with regard to the working capital valuation variable. This exhibit summarizes the projection of the changes in the Alpha working capital balance during the expected UEL of the customer relationships. And, this exhibit summarizes the analysis of the contributory asset charge ROI related to the Alpha working capital balance investment.

Exhibit 8 summarizes the analyst's projection of the appropriate contributory asset charge ROI with regard to the customer relationships-related tangible asset balance investment.

Exhibit 9 summarizes the analyst's calculation of the appropriate contributory asset charge ROI with regard to the Alpha other (non-customer-relationship) intangible assets. The analyst had previously identified and valued the following contributory intangible assets: computer software, trademarks and trade names, proprietary technology, and a trained and assembled workforce.

In summary, the analyst used the multiperiod excess earnings method to estimate the fair value of the Alpha residential customer relationships intangible asset. The analyst projected the intangible-asset-related income over the expected UEL of the residential customer relationships.

The analyst present valued this excess income projection to conclude an unadjusted value indication. And, the analyst estimated and added the TAB adjustment in order to conclude the fair value of this identifiable intangible asset.

Cost Approach Illustrative Example

This illustrative example summarizes a cost approach valuation analysis of an acquired assembled workforce. The assembled workforce is a common contributory intangible asset considered in many fair value valuations. In this example, let's assume that Bravo Electric Company ("Bravo") is an electric generation company that owns and operates an electric generating plant.

The Bravo stock was acquired by Acquiror Electric Company. The acquisition accounting valuation date was January 1, 2017.

The purchase transaction was accounted for as a business combination under the acquisition accounting provisions of ASC 805. Accordingly, the appropriate standard of value is fair value. Based on the analyst's HABU analysis, the appropriate premise of value is value in continued use.

Even though the Bravo assembled workforce is not an identifiable intangible asset under ASC 805,

Exhibit 2
Alpha Telecommunications Company
Residential Customer Relationships Valuation
Selected Valuation Variables
As of January 1, 2017
($000s)

Valuation Analysis Projection Variables	Basis for the Analyst's Valuation Variable Selection
Total Alpha 2017 budget revenue Budgeted residential customer revenue Budgeted commercial customer revenue	$6,000,000 $4,000,000 $2,000,000
Annual revenue growth rates	Alpha management long-range strategic plan
Customer attrition rate	Based on an average of the actual monthly attrition rates for the period 2013–2016
Economic useful life	Years until the remaining expected customer revenue is less than 5% of the original (valuation date) customer revenue
EBITDA profit margin %	Based on an average of 2012–2016, adjusted for new customer selling expense
Depreciation expense	15% of revenue, based on an average of 2012–2016
Amortization expense	5% of revenue, based on an average of 2012–2016
Income tax rate	Market-derived (market participant) effective income tax rate
Contributory asset charges: Working capital charge	Working capital balance = 10% of revenue, based on the 2012–2015 actual average; capital charge % = the 10% Alpha weighted average cost of capital ("WACC")
Tangible asset charge	Tangible asset fair value = $4,800,000, based on a replacement cost new less depreciation ("RCNLD") method valuation analysis of the real estate ("RE") and tangible personal property ("TPP"); $4,800,000 = 80% of total revenue; capital charge % = the 10% WACC
Intangible asset charge	Contributory intangible asset fair value = $2,000,000 based on the analyst's fair value valuations of the Alpha software, trademarks, technology and assembled workforce; capital charge % = the 10% WACC; $200,000 capital charge = 3% of the Alpha total revenue
Capital expenditures	Annual capx = 105% of annual depreciation expense, based on the analyst's due diligence of Alpha management projections; this variable is consistent with the Alpha historical 10-year average relationship
Working capital change	Based on the projected annual change in working capital balance; the balance is based on 10% of the remaining customer revenue
Discount periods	The midyear discounting convention is assumed
Discount rate	Based on the 10% WACC; the WACC equals the valuation conclusion's weighted average return on assets—or WARA (and the acquisition price internal rate of return ("IRR"), so the analyst used 10% as the capital charge return on investment ("ROI")
Tax amortization benefit factor	Based on 15-year period, 40% income tax rate, and 7.6061 PVAF factor for 15 years at a 10% present value discount rate

Exhibit 3
Alpha Telecommunications Company
Residential Customer Relationships Intangible Asset
Fair Value Valuation Summary
As of January 1, 2017
($000s)

		Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11
	Total Residential Customer Revenue	4,000,000	4,160,000	4,326,400	4,499,456	4,679,434	4,866,612	5,012,610	5,162,988	5,317,878	5,477,414	5,641,737
	Residential Revenue Growth Rate		4%	4%	4%	4%	4%	3%	3%	3%	3%	3%
	Customer Annual Attrition Rate	24%	24%	24%	24%	24%	24%	24%	24%	24%	24%	24%
	Remaining Customer Revenue %	76.0%	57.8%	43.9%	33.4%	25.5%	19.3%	14.7%	11.1%	8.5%	6.4%	4.9%
	Remaining Customer Revenue	3,040,000	2,404,482	1,899,290	1,502,818	1,188,576	939,256	736,854	573,092	452,020	350,555	276,445
	EBITDA Margin %	60%	60%	60%	60%	60%	60%	60%	60%	60%	60%	60%
	EBITDA	1,824,000	1,442,688	1,139,574	901,691	713,146	563,554	442,112	343,855	271,212	210,333	165,867
	Depreciation/Amortization Expense (% of revenue)	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%
	Depreciation/Amortization Expense	608,000	480,896	379,858	300,564	237,715	187,851	147,371	114,618	90,404	70,111	55,289
	EBIT	1,216,000	961,792	759,716	601,127	475,431	375,703	294,741	229,237	180,808	140,222	110,578
-	Income Taxes @ 40%	486,400	384,717	303,886	240,451	190,172	150,281	117,896	91,695	72,323	56,089	44,231
	After-Tax Operating Income	729,600	577,075	455,830	360,676	285,259	225,422	176,845	137,542	108,485	84,133	66,347
	Less: Contributory Asset Charges:											
-	Working Capital Asset Charge	30,400	24,045	18,993	15,028	11,886	9,393	7,369	5,731	4,520	3,506	2,764
-	Tangible Asset Capital Charge	243,200	192,358	151,943	120,225	95,086	75,141	58,948	45,847	36,162	28,044	22,116
-	Intangible Asset Capital Charge	91,200	72,134	56,979	45,085	46,657	28,178	22,106	17,193	13,561	10,517	8,293
	Total Capital Charge	364,800	288,537	227,915	180,338	142,629	112,712	88,423	68,771	54,243	42,067	33,173
+	Depreciation/Amortization Expense	608,000	480,896	379,858	300,564	237,715	187,851	147,371	114,618	90,404	70,111	55,289
-	Capital Expenditures	478,800	378,706	299,139	236,694	187,200	147,932	116,054	90,262	71,193	55,212	43,540
+	Working Capital Decrease	(96,000)	(63,552)	(50,519)	(39,647)	(31,425)	(24,931)	(20,241)	(16,376)	(12,107)	(10,146)	(7,412)
=	Net Cash Flow from Remaining Customers	590,000	454,280	359,153	283,855	224,570	177,560	139,980	109,503	85,560	67,111	52,335
	Discount Period	0.5	1.5	2.5	3.5	4.5	5.5	6.5	7.5	8.5	9.5	10.5
	Present Value Factor @ 10%	0.9524	0.8658	0.7871	0.7155	0.6505	0.5914	0.5376	0.4887	0.4443	0.4039	0.3672
	Present Value of Remaining Customer Cash Flow	561,916	393,316	282,689	203,098	146,083	105,009	75,253	53,514	38,014	27,106	19,217
	Total Present Value of Remaining Customer Cash Flow	1,905,215										
×	Tax Amortization Benefit Factor	1.2544										
=	Fair Value of the Remaining Customer Relationships (rounded)	2,400,000										

Exhibit 4
Alpha Telecommunications Company
Residential Customer Relationships Valuation
Residential Customer Turnover Rate Analysis

Month	2013	2014	2015	2016
January	2.46%	2.08%	2.00%	2.10%
February	1.76%	1.93%	2.02%	1.94%
March	2.05%	2.04%	2.05%	2.08%
April	1.91%	2.01%	2.01%	2.08%
May	2.06%	1.98%	2.01%	1.95%
June	1.95%	1.99%	2.09%	2.00%
July	1.92%	2.00%	2.00%	1.78%
August	2.26%	2.05%	2.03%	2.00%
September	1.96%	2.02%	2.09%	2.11%
October	2.20%	2.10%	2.01%	2.03%
November	1.87%	2.00%	1.93%	1.86%
December	1.56%	2.01%	1.90%	1.85%
Residential Customer Annual Turnover Rate	24.0%	24.2%	24.2%	23.8%

Exhibit 5
Alpha Telecommunications Company
Residential Customer Relationships Valuation
Normalized EBITDA Margin Analysis

		2012	2013	2014	2015	2016	Mean	Median	Selected
	Reported EBITDA Profit Margin %	58.2	58.0	57.6	58.2	58.0	58.0	58.0	
+	New Customer Selling Expense %	2.0	2.2	2.4	2.2	2.0	2.2	2.2	
=	Normalized EBITDA Profit Margin %	60.2	60.2	60.0	60.4	60.0	60.2	60.2	60%

The historical new customer-related selling expense incudes (1) any advertising directed solely to new customers and (2) any new customer promotional expense.

Exhibit 6
Alpha Telecommunications Company
Projection of the Relationship of Depreciation/Amortization Expense and Capital Expenditures
($000s)

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11
Remaining Residential Customer Revenue	3,040,000	2,404,482	1,899,290	1,502,818	1,188,576	939,256	736,854	573,092	452,020	350,555	276,445
Depreciation Expense (% of revenue)	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%
Depreciation Expense	456,000	360,672	284,894	225,423	178,286	140,888	110,528	85,964	67,803	52,593	41,467
Capital Expenditures as % of Depreciation Expense	105%	105%	105%	105%	105%	105%	105%	105%	105%	105%	105%
Capital Expenditures	478,800	378,706	299,139	236,694	187,200	147,932	116,054	90,262	71,193	55,212	43,540
Amortization Expense (% of revenue)	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
Amortization Expense	152,000	120,224	94,965	75,141	59,429	46,963	36,843	28,655	22,601	17,528	13,822
Depreciation & Amortization Expense	608,000	480,896	379,859	300,564	237,715	187,851	147,371	114,619	90,404	70,111	55,289

Exhibit 7
Alpha Telecommunications Company
Working Capital
Contributory Asset Charge
($000s)

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11
Remaining Residential Customer Revenue	3,040,000	2,404,480	1,899,290	1,502,818	1,188,576	939,256	736,854	573,092	452,020	350,555	276,445
Working Capital as a % of Revenue	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%
Working Capital Balance	304,000	240,448	189,929	150,282	118,857	93,926	73,685	57,309	45,202	35,056	27,644
Capital Charge ROI %	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%
Capital Charge on Working Capital Balance	30,400	24,045	18,993	15,028	11,886	9,393	7,369	5,731	4,520	3,506	2,764
Change in the Annual Working Capital Balance	(96,000)	(63,552)	(50,519)	(39,647)	(31,425)	(24,931)	(20,241)	(16,376)	(12,107)	(10,146)	(7,412)

Exhibit 8
Alpha Telecommunications Company
Tangible Assets
Contributory Asset Charge
($000s)

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11
Remaining Residential Customer Revenue	3,040,000	2,404,480	1,899,290	1,502,818	1,188,576	939,256	736,854	573,092	452,020	350,555	276,445
Net Tangible Assets as % of Revenue	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%
Remaining Residential Customer Tangible Assets	2,432,000	1,923,584	1,519,432	1,202,254	950,861	751,405	589,483	458,474	361,616	280,444	221,156
Capital Charge ROI %	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%
Capital Charge on the Tangible Assets	243,200	192,358	151,943	120,225	95,086	75,141	58,948	45,847	36,162	28,044	22,116

the assembled workforce should be valued:

1. to properly calculate any appropriate contributory asset charge for any income approach intangible assets and
2. to ensure that the residual amount of goodwill is at least equal to the amount of the implied fair value of the acquired assembled workforce.

Exhibit 9
Alpha Telecommunications Company
Residential Customer Relationships Valuation
Identifiable Intangible Assets
Contributory Asset Charge
($000s)

	Contributory Intangible Assets	Fair Value Estimate
	Computer Software	500,000
	Trademarks and Trade Names	500,000
	Proprietary Technology	500,000
	Assembled Workforce	500,000
	Total	2,000,000
	Contributory Intangible Asset Capital Charge	
	Contributory Intangible Assets – Total Fair Value	2,000,000
×	Rate of Return on Contributory Assets	10%
=	Contributory Intangible Asset Annual Capital Charge	200,000
÷	Alpha Total Revenue	6,000,000
=	Contributory Intangible Asset Capital Charge as a % of Revenue	3%

Let's assume that the Bravo plant operates with 50 employees. There are three principal staff levels at Bravo; let's call these levels executives, technicians, and administrative staff.

Bravo retained an analyst to estimate the fair value of its assembled workforce intangible asset as of January 1, 2017. The analyst decided to use the cost approach and the RPCNLD method to estimate the fair value of the Bravo assembled workforce for acquisition accounting purposes.

Exhibit 10 summarizes the reproduction cost new ("RPCN") component of the Bravo assembled workforce RPCNLD method analysis. In this RPCN calculation, the analyst considers all four components of intangible asset cost: direct costs, indirect costs, developer's profit, and entrepreneurial incentive. The analyst considered all four cost components in the calculation of the current (valuation date) cost to recruit, hire, and train the recreated Bravo assembled workforce.

The analyst's cost-related due diligence considerations are summarized next.

Reproduction Cost New—Direct Costs and Indirect Costs

The RPCN estimate considers the total compensation paid to each Bravo employee, labelled as "average salary" on Exhibit 10. These costs are considered to be direct costs. These costs are typically paid to the subject employees. The RPCN estimate considers all of the other expenses that the acquired entity would incur related to each employee. These other costs are considered indirect costs and include the following:

1. Payroll taxes
2. Employee benefits
3. Continuing professional education
4. Annual license and credential fees
5. Uniforms and lab coats
6. Employee parties, gifts, etc.

These indirect costs are typically paid on behalf of the subject employees to parties outside of the employer.

The total annual cost that the subject entity pays for an employee is often called the full absorption cost. This full absorption cost includes the following:

1. The compensation paid by the employer to the employee
2. The expenses paid by the employer to others so that the employee can perform his or her job

The RPCN includes all of the costs that the employer would incur to recreate the current assembled workforce with a new (but directly comparable) workforce. These costs may include the following:

1. Advertising for recruiting potential new employees to apply for each position

Exhibit 10
Bravo Electric Company
Trained and Assembled Workforce Valuation
Cost Approach RPCNLD Method
As of January 1, 2017

Bravo Assembled Workforce Employee Component	Number of Employees	Average Annual Salary	Other Cost Factor	Full Absorption Cost	Percent of Annual Full Absorption Cost: Recruit New Employees	Hire New Employees	Train New Employees	Percent of Full Absorption Cost to Reproduce Employees	Average Reproduction Cost New Component	Total Reproduction Cost New Component
Executives	10	$ 180,000	1.6	288,000	20%	20%	40%	80%	$ 230,400	$2,304,000
Technicians	20	60,000	1.5	90,000	10%	10%	30%	50%	45,000	900,000
Administrative Staff	20	40,000	1.4	56,000	5%	10%	25%	40%	22,400	448,000
Total Employees	50									
Total Direct Cost and Indirect Cost Components										3,652,000
Add: Developer's Profit Cost Component:										
Developer's Profit Margin										10%
Developer's Profit Cost Component (rounded)										365,000
Total Direct Costs and Indirect Costs and Developer's Profit										4,017,000
Add: Entrepreneurial Incentive Cost Component:										
Estimated Total Workforce Replacement Period							6 Months			
Estimated Average Workforce Reproduction Cost Investment (i.e., $4,017,000 total cost ÷ 2)							$ 2,009,000			
Required Annual Return on Investment							16%			
Required Return on Investment for 6-Month Workforce Recreation Period (16% ÷ 2)							8%			
Entrepreneurial Incentive Cost Component (i.e., $2,009,000 × 8% [rounded])							$ 161,000			161,000
Equals: Total Reproduction Cost New										$4,178,000

2. Interviewing expenses, background checks, and other pre-employment tests; and placement fees incurred to have the new employees show up on their first day of employment
3. On-the-job training in the particular position including first month training, first year training, and accumulated continuing education for the long-term employee

Reproduction Cost New—Developer's Profit and Entrepreneurial Incentive

There are two additional cost components for the analyst to consider in the RPCN calculation:

1. Developer's profit
2. Entrepreneurial incentive

The developer's profit considers the profit margin that a management consulting, human resources outsourcing, or professional staffing firm would earn if a willing buyer retained such an independent firm to recreate the subject assembled workforce. Likewise, the assembled workforce owner/operator (i.e., the target company) would expect to earn a profit on the sale of its internally developed intangible assets to the willing buyer/acquirer.

There are several generally accepted alternative procedures for estimating the entrepreneurial incentive cost component. One common procedure is to estimate the lost-profits-related opportunity cost that the acquiree entity would experience during the intangible asset recreation period. When using this entrepreneurial incentive measurement procedure, the analyst should appropriately allocate the subject entity's overall operating profit (i.e., the total opportunity cost during the intangible asset recreation period) to all of the recreated intangible assets.

For example, let's assume that the acquiree company has five intangible assets that are valued by reference to the cost approach. The target company total entrepreneurial incentive (i.e., the recreation period total acquiree company lost profits) should be allocated among the five recreated intangible assets.

Another common entrepreneurial profit measurement procedure is to calculate a fair rate of return on the total of the recreated intangible asset other cost components (i.e., direct costs, indirect costs, and developer's profit). This is the entrepreneurial profit measurement procedure that is illustrated in Exhibit 10.

The Bravo assembled workforce RPCN is the sum of all four cost components calculated by the analyst. Now, let's consider the depreciation and obsolescence adjustment to the Bravo RPCN calculation.

Illustrative Depreciation Analysis Considerations

In order to reach a fair value conclusion, the analyst estimates the assembled workforce RPCNLD. As in any cost approach analysis, the analyst considers if there is any deterioration or obsolescence related to this acquired intangible asset.

From the valuation due diligence process, the analyst learned the following facts about the Bravo workforce:

1. Two of the technicians are scheduled to retire in the next year or so.
2. One of the administrative staff is out on disability leave and is not expected to return to work.
3. Bravo is overstaffed with regard to administrative staff; in addition to the administrative employee who is on disability leave, any market participant willing buyer would be expected to eliminate two of the administrative positions.
4. Bravo has experienced very low employee turnover of its technician staff. Because of their long tenure, these technicians earn an average annual salary of $60,000. If the actual technicians were replaced, they would be replaced with adequately qualified (but less tenured) employees earning an average annual salary of $52,500.

Exhibit 11 summarizes the analyst's physical depreciation analysis with regard to the assembled workforce. Three employees are either not physically on the job—or are not physically needed to be on the job. One employee is on disability leave and is not expected to be replaced. Two of the current employees will retire soon.

The market participant acquirer would not pay the acquiree company for workforce reproduction costs that the acquirer will, in fact, have to incur in the very near future. The analyst has to eliminate (through depreciation) the RPCN factor for these three employees from the assembled workforce fair value valuation.

Exhibit 12 summarizes the analyst's functional obsolescence analysis. Functional obsolescence includes a value decrement for intangible assets that are either:

1. inadequate or
2. superadequate.

Bravo has two inadequate employees—that is, employees who a market participant acquirer would

Exhibit 11
Bravo Electric Company
Trained and Assembled Workforce Valuation
Physical Deterioration
As of January 1, 2017

Assembled Workforce Components	No. of Employees	Average Direct and Indirect Reproduction Cost New	Total Direct and Indirect Reproduction Cost New	Developer's Profit and Entrepreneurial Incentive Cost Components	Total Reproduction Cost New	Percent Depreciation	Equals: Accumulated Depreciation
Technicians	2	$45,000	$90,000	$13,000	$103,000	100%	$103,000
Administrative Staff	1	22,400	22,400	3,200	25,600	100%	25,600
Total							$128,600

Exhibit 12
Bravo Electric Company
Trained and Assembled Workforce Valuation
Functional Obsolescence
As of January 1, 2017

Assembled Workforce Components	No. of Employees (A)	Excess Direct and Indirect Reproduction Cost New (B)	Excess Developer's Profit and Entrepreneurial Incentive Cost Component (C)	Excess Total Reproduction Cost New (B + C)	Functional Obsolescence (A × (B + C))
Technicians	18	$7,500	$1,100	$8,600	$154,800
Administrative Staff	2	22,400	3,200	25,600	51,200
Total					$206,000

Exhibit 13
Bravo Electric Company
Trained and Assembled Workforce Valuation
Cost Approach RPCNLD Method
As of January 1, 2017

Cost Approach Analysis	Cost Component
Reproduction Cost New (all 50 employees)	$4,178,000
Less: Physical Deterioration Allowance (limited life staff)	128,600
Less: Functional Obsolescence Allowance (inadequate staff and superadequate staff)	206,000

not continue to employ. The acquirer will not pay the acquiree for the RPCN related to these inadequate employees. Bravo has 18 superadequate employees—that is, employees who are overtrained, overqualified, and overpaid. The acquirer will not pay the acquiree for the excess compensation (above replacement level of compensation) level RPCN component for these 18 employees.

For the assembled workforce intangible asset, Exhibit 13 summarizes the analyst's calculation of reproduction cost new less physical depreciation and less functional obsolescence.

This RPCNLD conclusion indicates what a market participant willing buyer would pay to an acquiree company willing seller for this assembled workforce, assuming that there is no economic obsolescence related to this intangible asset. To complete the cost approach analysis, the analyst has to test for economic obsolescence at the intangible asset owner/operator.

Exhibit 14 summarizes the analyst's illustrative measure of intangible asset owner/operator economic obsolescence. Based on a rigorous due diligence, the analyst decided that there were six performance metrics that could be used to measure economic obsolescence (if any) at Bravo.

That due diligence also revealed the appropriate benchmark measures or benchmark time periods that the analyst could use to compare (1) the Bravo operations without/before economic obsolescence to (2) the Bravo current operations with economic obsolescence.

Exhibit 15 summarizes the analyst's calculation of the assembled workforce economic obsolescence amount.

Illustrative Cost Approach Example Conclusion

Exhibit 16 summarizes the analyst's cost approach measurement of the fair value of the Bravo assembled workforce intangible asset as of the January 1, 2017, valuation date.

Market Approach Illustrative Example

This illustrative example summarizes a market approach analysis of acquired trademarks and trade names. Trademarks and trade names are common marketing-related intangible assets considered in many fair value valuations. In this example let's assume that Charlie Company ("Charlie") is a cellular telephone services company.

The Charlie stock was acquired by Consolidated Telecom Company. This acquisition was accounted for as a business combination under the provisions of ASC 805. The appropriate business combination valuation date was January 1, 2017.

The Charlie trademarks and trade names are an important identifiable intangible asset for the acquiree company. For ASC 805 acquisition accounting purposes, the appropriate standard of value is fair value. Based on the analyst's HABU analysis, the appropriate premise of value is value in continued use.

Charlie retained an analyst to estimate the fair value of the acquired trademarks and trade names intangible asset. The analyst decided to use the market approach and the relief from royalty ("RFR") method to value the identifiable intangible asset.

Charlie management provided the analyst with a long-term financial forecast. The analyst performed a rigorous due diligence process, and the analyst concluded that the appropriate UEL is 20 years before the subject trademarks. The reasons for this UEL estimate were described in the fair value valuation report and documented in the fair value valuation work papers.

Let's assume that the Charlie WACC is 11 percent. This 11 percent WACC is also the weighted average return on assets ("WARA") that results from the analyst's total purchase price allocation. And, let's assume that this 11 percent WACC is also the overall acquisition price/deal structure IRR.

Common Intellectual Property License Transaction Databases

First, the analyst performed due diligence with regard to the Charlie ownership of the subject trademarks and with regard to the subject intellectual property ownership interests.

Second, the analyst performed due diligence with regard to the Charlie operation of the subject trademarks and with regard to the economic benefit of the trademarks to Charlie.

After selecting the RFR method as the most appropriate valuation method, the analyst searched for arm's-length trademark license agreements between independent parties that could serve as comparable uncontrolled transactions (or "CUTs"). The analyst consulted several commercially available databases in the search for trademark CUTs that would provide empirical evidence of market participant trademark/license royalty rates.

The analyst researched cellular-telephone-related CUT intellectual property license agreements by accessing the following databases:

Exhibit 14
Bravo Electric Company
Trained and Assembled Workforce Valuation
Economic Obsolescence
As of January 1, 2017

Metric Item	Bravo Financial or Operational Performance Metric	Bravo LTM Ended 12/31/16	Benchmark Measure	LTM Percent Shortfall Compared to Benchmark	Benchmark Comparison Reference Source
1	Average Collected Revenue per Employee	$340,000	$420,000	19%	2016 Industry Average
2	Annual Growth Rate in the Entity Revenue	3.5%	4.5%	22%	Actual Bravo Average for 2012–2016
3	Profit Margin	10%	14%	29%	2016 Industry Average
4	Profit Contribution Marin	55%	67%	18%	2016 Industry Average
5	Return on the Entity Average Assets	10%	12.5%	20%	Actual Bravo Average for 2012–2016
6	Return on the Entity Average Equity	20%	25%	20%	Actual Bravo Average for 2012–2016
	LTM Benchmark Measures Percent Shortfall:	– Mean Percent	21.3%		
		– Median Percent	20.0%		
		– Mode Percent	20.0%		
		– Trimmed Mean Percent	20.3%		
		– Trimmed Median Percent	20.0%		
	Selected Economic Obsolescence Percent		20.0%		

Exhibit 15
Bravo Electric Company
Trained and Assembled Workforce Valuation
Economic Obsolescence
As of January 1, 2017

	Cost Approach Analysis	Cost Approach Component
	Reproduction Cost New less Physical Depreciation and Functional Obsolescence	$3,843,400
×	Selected Economic Obsolescence Percent	20%
=	Economic Obsolescence Allowance (rounded)	$768,700

- RoyaltySource (www.royaltysource.com)—The AUS Consultants database provides intellectual property license transaction royalty rates. The database can be searched by industry, technology, and/or keyword. The information includes royalty rates, name of the licensee and the licensor, a description of property licensed (or sold), the transaction terms, and the original information sources.
- RoyaltyStat, LLC (www.royaltystat.com)—RoyaltyStat is a subscription-based database of intellectual property license royalty rates and license agreements, compiled from Securities and Exchange Commission documents. The database is searchable by SIC code or by full text.
- ktMINE (www.bvmarketdata.com)—ktMINE is an interactive database that provides direct access to intellectual property license royalty rates, actual license agreements, and detailed agreement summaries. In this database, intellectual property license agreements are searchable by industry, keyword, and various other parameters.

Selected CUT Trademark License Agreements

The analyst documented the CUT search criteria. The analyst documented the CUT selection criteria. The analyst documented the reasons for each potential CUT that was selected. And, the analyst documented the reasons for each potential CUT that was rejected. The analyst reviewed each CUT license agreement. And, the analyst confirmed each CUT license pricing formula.

The analyst documented the selected comparison methods (e.g., territory, products covered, exclusivity, licensor requirements, license rights, renewal options, and license terms). And, the analyst assembled (and normalized) the relevant royalty-related pricing data with regard to the selected CUT licenses.

Exhibit 17 summarizes the relevant license pricing and other data with regard to the analyst's selected CUT trademark licenses. (The Exhibit 17 data are hypothetical and were materially modified for the purposes of this illustrative example.)

Exhibit 18 summarizes the analyst's quantitative analysis of the CUT license agreement royalty rate data.

Comparing (1) the Charlie trademarks to (2) the selected CUT license trademarks, the analyst

Exhibit 16
Bravo Electric Company
Trained and Assembled Workforce Valuation
Cost Approach Valuation Synthesis and Conclusion
As of January 1, 2017

	Cost Approach Analysis	Cost Approach Component
	Reproduction Cost New	$4,178,000
–	Physical Deterioration Allowance	128,600
–	Functional Obsolescence Allowance	206,000
–	Economic Obsolescence Allowance	768,700
=	Reproduction Cost New less Depreciation	$3,074,700
	Trained and Assembled Workforce Fair Value (rounded)	$3,100,000

Exhibit 17
Charlie Company
Trademarks and Trade Names
Market Approach Relief from Royalty Method
CUT Trademark License Transactions

Trademark Licensor	Trademark Licensee	Comparable Uncontrolled Transaction Trademark License Summary Description	License Start Year	License Term	License Royalty Rate Range % of Revenue		License Upfront/ Other Fees
					Low	High	
Southwestern Bell Telephone Company	Telecom Group	Telecom Group agreed to a royalty for the exclusive right to the name, reputation, and public image of the Southwestern Bell Telephone Company.	2014	10 years	5.0%	5.0%	NA
Cable and Wireless PLC	Hong Kong Telecommunications Ltd.	Cable and Wireless entered into an exclusive agreement with a Hong Kong telephone company for the use of its trademarks (in particular, use of the telecommunication name and logo in connection with international business) on relevant products and services.	2012	10 years	4.0%	4.0%	NA
AT&T Corp.	KIRI Inc.	AT&T grants to KIRI an exclusive license to use the licensed marks (AT&T and globe design logo) solely in connection with the marketing, advertising, promotion, and provision of the licensed services (such as telecommunication and Internet services) in the licensed territory.	2013	5 years	2.5%	4.0%	$2.5 million minimum guarantee
Nextel	Nextel Partners	A contract between a private U.S. company and a publicly owned U.K. spin-off company includes an exclusive license agreement for the right to use the Nextel brand name. The licensee owns its own spectrum and provides services to the public as Nextel.	2015	5 years	1.5%	2.0%	NA
France Telecom (Orange Brand Services Limited, UK)	PTK Centertel	PTK Centertel is rebranding its name from Idea to Orange. Idea, which now holds 32.2% of the market, will change its name and logo (trademark). PTK Centertel will pay to France Telecom a royalty for the exclusive use of the Orange name and mark.	2016	5 years	1.6%	1.6%	NA
Global Communications International, Inc.	Unical Enterprises, Inc.	Unical licensed from Global an exclusive right to use the following trademarks: Techline, Easytouch, Favorite, Classic Favorite, Classic Favorite Plus, Phototouch, Choice, Competitor, Competitor Plus, Roommate, Plaza, Favorite Plus, Easyreach, Big Button, EZ Button, Cleartech, Favorite Messenger II, Digimate, Mountain Bell, B Office, Bell Symbol, Bell Mark, Northwestern Bell. All of the above are in connection with corded telephones, cordless telephones, answering machines, and integrated telephone/answering devices.	2015	10 years	2.1%	2.2%	NA
Virgin Enterprises Limited	NTL Inc.	NTL entered into a trademark license agreement under which it is entitled to use specified Virgin trademarks within the U.K. and Ireland related to Internet, television, fixed line telephony, and mobile telephony.	2015	10 years	1.25%	1.25%	£8.5 million minimum annual royalty

considered trademark use, territory, products, market size, market growth rate, user size, user profitability, trademark-related profit potential, and other factors. Based on this comparative analysis, the analyst concluded that the Charlie trademarks deserved a royalty rate that was slightly below the mean and median royalty rates—but higher than the first (i.e., the low) quartile royalty rate.

The analyst selected a 2 percent of revenue royalty rate to apply to the Charlie trademark RFR method analysis. The analyst also selected this royalty rate so as to consider the expense to the licensor of maintaining the licensed trademark over the expected 20-year trademark UEL period.

Exhibit 19 summarizes the analyst's market approach RFR method fair value valuation analysis. This analysis incorporates the royalty relief analysis over both (1) a 5-year discrete projection period and (2) a 15-year terminal value projection period. The total 20-year term of this projection period equals the analyst's estimate of the Charlie trademark UEL.

Based on this market approach and relief from royalty method valuation analysis, the analyst concluded the fair value of the Charlie trademarks and trade names as of the business combination valuation date.

Exhibit 18
Charlie Company
Trademarks and Trade Names
Market Approach Relief from Royalty Method
Analysis of CUT Trademark License Data

	Indicated CUT License Agreements License Royalty Rate Range	
	Low Royalty Rate Indications	High Royalty Rate Indications
High Royalty Rate	5.0%	5.0%
Low Royalty Rate	1.3%	1.3%
Mean Royalty Rate	2.9%	3.2%
Median Royalty Rate	2.1%	2.2%
Trimmed Mean Royalty Rate	2.3%	2.8%
First Quartile Royalty Rate	1.4%	2.8%
Third Quartile Royalty Rate	4.5%	4.6%

Analyst's Selection of the Appropriate Charlie Trademark Royalty Rate = 2%

Reconciliation of WACC, WARA, and IRR

The prior three examples illustrated the application of the income approach, the cost approach, and the market approach, respectively, in the fair value valuation of acquired intangible assets. At the conclusion of the intangible asset valuation process, there is an additional procedure that is important in the acquisition accounting valuation.

In the earlier stages of the fair value valuation, the analyst mathematically concluded (and documented in the valuation work papers) that the acquiree company WACC was consistent with the acquisition price implicit IRR. In this concluding stage of the fair value valuation, the analyst should also quantitatively prove (and document in the valuation work papers) that the purchase price allocation implied WARA is consistent with both:

1. the acquiree's WACC used in the fair value valuation and
2. the deal IRR expected by the corporate acquirer.

In particular, the MPF indicates that this WACC/IRR/WARA reconciliation is an important part of the fair value valuation process for acquisition accounting purposes. Therefore, the following example presents an illustration of the analyst's comparison of:

1. the acquiree company-based WACC,
2. the acquirer company-base IRR, and
3. the purchase price allocation-based WARA.

This illustrative example relates to the hypothetical Delta Company that was acquired in February 2017. The analyst was retained to perform the fair value valuation for acquisition accounting purposes.

Illustrative Reconciliation of WACC to WARA to IRR

Let's assume that 100 percent of the Delta Company ("Delta") stock is acquired by Acquirer Corporation ("Acquirer") for a total acquisition purchase price of

Exhibit 19
Charlie Company
Trademarks and Trade Names
Market Approach Relief from Royalty Method
Fair Value Valuation Summary
As of January 1, 2017

Present Value of Discrete Projection Period Trademark Royalty Expense Relief:	Projected Calendar Years 2017 $000	2018 $000	2019 $000	2020 $000	2021 $000
Management–Provided Revenue Projection [a]	8,634,139	8,358,945	8,042,393	7,720,369	7,377,326
Selected Trademark License Royalty Rate [b]	2%	2%	2%	2%	2%
Projected Pretax Trademark Royalty Expense Relief	172,683	167,179	160,848	154,407	147,547
Less: Projected Income Tax Rate [c]	37%	37%	37%	37%	37%
Projected After-Tax Trademark Royalty Expense Relief	108,790	105,323	101,334	97,277	92,954
Discounting Period [d]	0.5000	1.5000	2.5000	3.5000	4.5000
Present Value Factor @ 11% [e]	0.9492	0.8551	0.7704	0.6940	0.6252
Presented Value of Trademark Royalty Relief	103,264	90,061	78,068	67,510	58,115
Sum of Present Values of Trademark Royalty Relief	397,018				
Present Value of Terminal Period Trademark Royalty Expense Relief:					
Fiscal 2022 Normalized Trademark Royalty Expense Relief [f]	$92,954				
Direct Capitalization Multiple [g]	7.579				
Terminal Value of Trademark Royalty Expense Relief	704,498				
Present Value Factor @ 11% [e]	0.6252				
Present Value of Terminal Value	$440,452				
Trademark Valuation Summary:					
Present Value of Discrete Period Trademark Royalty Expense Relief	$397,018				
Present Value of Terminal Period Trademark Royalty Expense Relief	440,452				
Fair Value of the Charlie Trademarks (rounded)	$840,000				

[a] Revenue projection provided by Charlie management and subject to analyst due diligence; this revenue projection is consistent with the acquirer's transaction-related long-range financial plan.

[b] Based on the analyst's review of arm's-length license agreements between parties for similar intellectual property.

[c] Based on the market participant expected effective income tax rate.

[d] Calculated as if cash flow is received at midyear.

[e] Based on the Charlie weighted average cost of capital.

[f] Based on the 2021 projected after-tax trademark royalty expense relief and an expected long-term growth rate of 0 percent.

[g] Based on a present value of an annuity factor for an 11 percent discount rate and a remaining 15-year expected UEL (after the 5-year discrete projection period).

$7,283,850. Let's assume that the business combination transaction closes on January 20, 2017.

Let's assume that the analyst performed (and documented) a rigorous review of the Acquirer's target company cash flow projections. The analyst performed this due diligence in order to calculate the transaction-price-implied IRR. The analyst performed an acquiree company WACC calculation in order to conclude the appropriate present value discount rate (and direct capitalization rate) to use in the income approach valuation analyses.

The analyst concluded the fair value for all of the acquired Delta net working capital assets, tangible assets, and intangible assets (including the residual amount for the acquired goodwill).

The analyst concluded the purchase price allocation WARA based on the concluded fair value indications for each of the categories of acquired Delta assets.

To confirm the reasonableness of the fair value purchase price allocation, the analyst compared (1) the transaction price IRR to (2) the acquiree company WACC to (3) the fair value purchase price allocation WARA.

Exhibit 20 summarizes the analyst's IRR calculation, based on (1) the total transaction consideration of $7,283,850 and (2) the Acquirer-prepared financial projections used to price the business combination transaction.

The analyst solved for the IRR that caused the sum of (1) the present value of the discrete projection period net cash flow and (2) the present value of the terminal period to equal (3) the $7,283,850 total transaction price. That calculated IRR was 11.8 percent. For comparison purposes, the analyst rounded the 11.8 percent calculated IRR to 12 percent.

Exhibit 21 summarizes the WACC calculation that the analyst performed to conclude the present value discount rate (and the direct capitalization rate) to use in the Delta fair value valuations. The Exhibit 21 data are hypothetical and are presented for illustrative purposes only.

Based on the WACC analysis, the analyst concluded that the appropriate present value discount rate was 12 percent (rounded). This 12 percent WACC-based discount rate is consistent with the Acquirer's transaction-analysis-based 12 percent IRR.

Exhibit 22 summarizes the analyst's WARA analysis. Exhibit 22 presents each of the Delta acquired asset categories. Exhibit 22 includes the fair value indications for each of the asset categories valued by the analyst—including the residual calculation of the acquired goodwill.

Exhibit 22 presents the analyst's determination of a fair, market-derived rate of return on each of the acquired asset categories. And, Exhibit 22 presents the calculation of the weighted return on assets for each of the acquired asset categories.

Based on the Exhibit 22 analysis, the WARA implied by the analyst's purchase price allocation was 12 percent (rounded). That fair value valuation 12 percent WARA compares to the 12 percent Delta WACC and the 12 percent Acquirer IRR. Accordingly, this WARA/WACC/IRR reconciliation gives the analyst comfort with regard to the acquisition accounting fair value conclusions.

Attributes of a Fair Value Valuation Report

The MPF provides considerable guidance with regard to the documentation that should be included in a fair value valuation report prepared for acquisition accounting purposes. This MPF guidance extends to the reporting of intangible asset fair value valuations prepared for ASC 805 compliance purposes.

In order to encourage the valuation report reader's acceptance and to comply with the MPF, the intangible asset fair value valuation report should be:

- clear, convincing, and cogent;
- well-organized, well-written, and well-presented;
- free of grammar, punctuation, spelling, and mathematical errors; and
- procedurally and mathematically replicable, without the reliance on any unexplained or unsourced valuation variables.

Whether the fair value valuation report is a "comprehensive valuation report" or an "abbreviated valuation report" (as those terms are defined in the MPF), the intangible asset fair value valuation report should tell a narrative story that:

- defines the analyst's valuation assignment;
- describes the analyst's data gathering and due diligence procedures;
- justifies the analyst's selection of (and rejection of) each of the generally accepted valuation approaches, methods, and procedures;
- explains how the analyst performed the valuation synthesis and reached the final fair value conclusion;
- defends the analyst's intangible asset fair value conclusion; and

Exhibit 20
Delta Company
Illustrative Purchase Price Allocation
Acquisition-Related Financial Projections
Internal Rate of Return Calculation
As of January 20, 2017

	Acquirer's Acquisition-Related Financial Projections	Projected Fiscal Years Ending December 31,					Normalized
	Present Value of Discrete Period Net Cash Flow:	2017	2018	2019	2020	2021	2021
	Net Operating Income (after tax)	$ 736,209	$636,207	$654,030	$667,110	$680,453	$680,453
	Noncash Expense (i.e., depreciation expense)	3,615	3,723	3,798	3,874	3,951	
	Capital Expenditures	(4,016)	(4,137)	(4,220)	(4,304)	(4,390)	
	Change in Net Working Capital	(10,093)	(11,869)	(11,583)	(11,815)	(12,051)	(12,051)
	Net Cash Flow	728,715	623,924	642,025	654,865	667,963	668,402
	Months Remaining in the Initial Projection Year	11.21					
	Adjusted Net Cash Flow	677,690					
	Discounting Period	0.4517	1.4035	2.4035	3.4035	4.4035	
	Delta Present Value Factor @ 11.8%	0.9508	0.8550	0.7647	0.6839	0.6117	
	Present Value of Net Cash Flow	$ 644,348	$533,453	$490,953	$447,862	$408,591	
	Total Present Value of Discrete Period Net Cash Flow	$2,525,207					
	Acquirer Acquisition-Related Financial Projections Present Value of Terminal Period Net Cash Flow:						
	Fiscal 2022 Net Cash Flow (2021 NCF + 2%)	$681,770					
÷	Delta Direct Capitalization Rate (11.8% – 2%)	9.8%					
=	Terminal Value	6,956,837					
×	Delta Present Value Factor @ 11.8 Percent	0.6117					
=	Present Value of Terminal Period Net Cash Flow	$4,255,497					
	Value Summary:						
	Discrete Period Net Cash Flow Present Value	$2,525,207					
+	Terminal Period Net Cash Flow Present Value	4,255,497					
=	Business Enterprise Value	6,780,704					
+	Cash and Cash Equivalents	506,946					
=	Total Transaction Purchase Price	$7,287,650					
	Transaction Implied Internal Rate of Return	11.8%					
	Transaction Price IRR (rounded)	12%					

Exhibit 21
Delta Company
Illustrative Purchase Price Allocation
Weighted Average Cost of Capital
As of January 20, 2017

Present Value Discount Rate
and Direct Capitalization Rate

Cost of Equity Capital:

Model #1: Modified Capital Asset Pricing Model:			Source:
Risk-Free Rate of Return		2.3%	20-year Treasury bond, *The Federal Reserve Statistical Release*, as of February 5, 2017
General Equity Risk Premium	6.0%		Duff & Phelps, LLC, *2017 Valuation Handbook: Guide to Cost of Capital*
Multiplied by: Raw Small Composite Industry Levered Delta	0.5		Duff & Phelps, LLC, *2017 Valuation Handbook: Industry Cost of Capital*, SIC code 36
Industry-Adjusted General Equity Risk Premium		3.0%	
Size Equity Risk Premium		5.6%	Duff & Phelps, LLC, *2017 Valuation Handbook: Guide to Cost of Capital*, decile 10
Indicated Cost of Equity Capital		10.9%	

Model #2: Build-Up Model:			Source:
Risk-Free Rate of Return		2.3%	20-year Treasury bond, *The Federal Reserve Statistical Release*, as of February 5, 2017
General Equity Risk Premium		6.0%	Duff & Phelps, LLC, *2017 Valuation Handbook: Guide to Cost of Capital*
Industry Equity Risk Premium		0.3%	Duff & Phelps, LLC, *2017 Valuation Handbook: Industry Cost of Capital*, SIC code 36
Size Equity Risk Premium		5.6%	Duff & Phelps, LLC, *2017 Valuation Handbook: Guide to Cost of Capital*
Indicated Cost of Equity Capital		14.2%	
Selected Cost of Equity Capital		12.5%	Average of Models #1–#2

Cost of Debt Capital:

			Source:
Before-Tax Cost of Debt Capital		5.4%	*Moody's Baa Corporate Bond Yield*, as of February 5, 2017
Income Tax Rate		38%	Based on the blended federal and state effective income tax rate
Selected Cost of Debt Capital		3.3%	

Weighted Average Cost of Capital Calculation:

			Source:
Selected Cost of Equity Capital	12.5%		
Multiplied by: Equity/Invested Capital (based on SIC code 36)	99.0%		Duff & Phelps, LLC, *2017 Valuation Handbook: Industry Cost of Capital*, SIC code 36
Equals: Weighted Cost of Equity Capital		12.4%	
Selected Cost of Debt Capital	3.3%		
Multiplied by: Debt/Invested Capital (based on SIC code 36)	1.0%		Duff & Phelps, LLC, *2017 Valuation Handbook: Industry Cost of Capital*, SIC code 36
Equals: Weighted Cost of Debt Capital		0.03%	

Weighted Average Cost of Capital (rounded)	12%
Less: Expected Long-Term Growth Rate (rounded)	2%
Equals: Direct Capitalization Rate (rounded)	10%

Exhibit 22
Delta Company
Illustrative Purchase Price Allocation
Weighted Average Return on Assets Analysis
As of January 20, 2017

Acquired Net Assets Subject to Valuation	Fair Value Conclusion $	Required Rate of Return on Assets	Weighted Return of Assets
Net Working Capital	1,297,324	3%	0.5%
Tangible Assets	58,902	6%	0.0%
Trademarks and Tarde Names	1,103,700	12%	1.9%
Patents	165,900	12%	0.3%
Customer Relationships	2,977,100	12%	5.2%
Trained and Assembled Workforce	241,400	12%	0.4%
Goodwill (excluding assembled workforce)	1,439,524	20%	4.0%
Total Net Assets (equals purchase price)	7,283,850		
Weighted Average Return on Assets (rounded)			12%
Weighted Average Cost of Capital (rounded)			12%
Transaction Price Internal Rate of Return (rounded)			12%

- describes all of the data sources that the analyst relied on (and includes exhibit or appendix copies of any nonpublic source documents).

Summary and Conclusion

This discussion focused on the types of identifiable intangible assets that are typically considered in an ASC 805 acquisition accounting valuation. This discussion also considered what is not an identifiable intangible asset for business combination fair value valuation purposes.

This discussion described the common elements of the identifiable intangible asset fair value valuation. This discussion presented an illustrative income approach valuation analysis of an identifiable intangible asset. This discussion presented an illustrative cost approach valuation analysis of an identifiable intangible asset. And, this discussion presented an illustrative market approach valuation analysis of an identifiable intangible asset.

This discussion summarized the analyst's considerations with regard to the intangible asset fair value valuation synthesis and conclusion. With consideration of the MPF, this discussion summarized the analyst's considerations with regard to documenting the intangible asset valuation variables in the fair value valuation work file. With consideration of the MPF professional guidance, this discussion summarized the analyst's considerations for reporting the results of the intangible asset valuation in the fair value valuation report.

This discussion summarized the analyst's considerations with regard to the development of—and the reporting of—an identifiable intangible asset valuation for ASC 805 acquisition accounting purposes. And, this discussion presented analyst caveats related to the development of—and the reporting of—fair value valuations of identifiable intangible assets acquired in a business combination.

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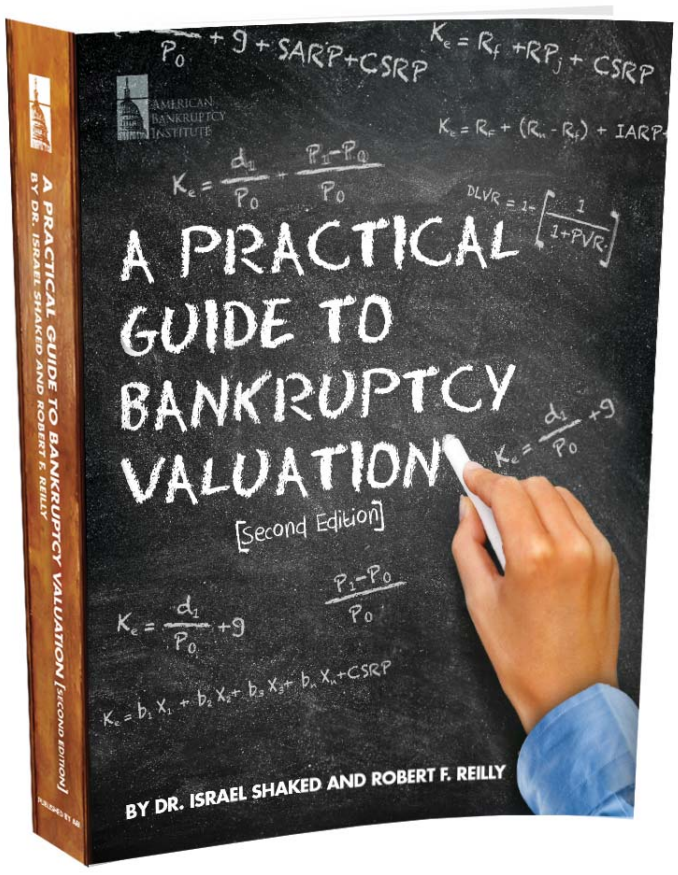

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A PRACTICAL GUIDE TO BANKRUPTCY VALUATION

Dr. Israel Shaked and Robert F. Reilly

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Willamette Management Associates

Best Practices Discussion

The Certified in Entity and Intangible Valuations Credential and the Mandatory Performance Framework

Terry G. Whitehead, CPA

Fair value measurement is an important valuation-related issue which, in recent years, has received increased attention regarding the measurement, presentation, and disclosure for financial accounting purposes. In an effort to enhance the consistency and transparency in the fair value measurement process, the Certified in Entity and Intangible Valuations ("CEIV") professional credential was established. An important education and training component for the CEIV credential is the Mandatory Performance Framework ("MPF"). The MPF is a practical, nonauthoritative guide which identifies and establishes appropriate engagement process and documentation guidelines for valuation analysts who prepare valuations for financial accounting purposes.

Introduction

This discussion provides an overview of the certified in entity and intangible valuations ("CEIV") certification program and the mandatory performance framework ("MPF"). The CEIV and the MPF have been designed to ensure consistency and transparency of fair value measurements for financial accounting purposes.

Over the past several years, regulators have raised the question as to whether the valuation analysts ("analysts") who perform fair value analyses for financial accounting purposes possess the appropriate qualifications, training, and oversight to consistently and appropriately complete such engagements.

As long as they possess the requisite education and experience, analysts who perform fair value measurements for financial accounting purposes are now able to obtain the CEIV professional credential from one of the below-listed valuation professional organizations ("VPOs"):

- American Society of Appraisers ("ASA")
- American Institute of Certified Public Accountants ("AICPA")
- Royal Institution of Chartered Surveyors

The CEIV credential holders will be required to be a member of the respective VPO and adhere to annual and ongoing compliance and review requirements for recertification. These compliance requirements include the MPF as well as annual engagement-level quality review.

The CEIV Credential

The CEIV credential is available to both analysts with current valuation designations as well as other professionals without a current valuation credential. Certain educational requirements may be satisfied for those individuals with a current valuation designation.

To obtain the credential, a CEIV candidate should (1) meet valuation and fair value measurement competencies and (2) pass a CEIV exam.

As an example, this section provides a summary of the credentialing pathway for analysts seeking the CEIV credential through the ASA.

Qualifications and Pathway to the Credential

The qualifications and pathway to the CEIV credential can vary significantly for each individual based on his or her prior experience, education, and valuation credentials.

Figure 1 provides an example published by the ASA for candidates seeking the CEIV credential from the ASA organization.[1]

Education and Training

Obtaining the CEIV credential through the ASA (as an example) requires the following steps:

1. Education
2. Experience
3. Application

Eligibility for application of the CEIV credential through ASA requires membership in ASA. In addition to the education and experience requirements for the CEIV credential, membership in the ASA requires each individual to pass the ASA ethics exam and a 15-hour Uniform Standards of Professional Appraisal Practice course and exam within 10 months of the candidate's application approval to the ASA.

As identified in the first level of four boxes in Figure 1, the initial education requirements may be fulfilled by either (1) passing the indicated exams or (2) holding an approved professional designation.

Examinations

In addition to the exams or designations necessary to fulfill the initial business valuation education requirements, there is an additional set of exams which focus on:

1. the body of knowledge related to the valuation subjects comprising the CEIV designation and
2. the MPF.

An education course is also required, which covers the topics to be included on the respective exams.

Experience

Once the education and exam requirements have been met, a candidate will provide documented experience related to business and intangible asset fair value measurements. This experience will include a minimum of 3,000 hours of related fair value measurement experience over the prior 10 years to apply for the CEIV certification. At least half of the required hours (i.e., 1,500 hours) will have been completed in the preceding five years.

The experience requirement may be documented and submitted either by a letter of attestation from a qualified supervisor or by an experience engagement log.

Recertification

As with all reputable professional designations, CEIV credential holders are required to maintain ongoing continuing professional education ("CPE") requirements. These requirements include both annual updates as well as education and experience minimums over a five-year CPE period.

On an annual basis, a CEIV holder will be required to complete an eight-hour fair value measurement class update. Over the five-year period, the CEIV holder will need to complete 40 additional hours of CPE, complete 1,500 hours of fair-value-measurements-related experience, comply with the MPF, and submit to ongoing engagement level quality review.

Figure 2 provides a qualifications snapshot and the pathway to the CEIV credential as produced by Corporate and Intangibles Valuation Organization, LLC.[2]

Credentialing Process Summary

VPOs have recognized the increased reliance on fair value measurement for financial accounting public reporting purposes. Due to the sophisticated financial models, valuation approaches, and analytical requirements necessary to complete a fair value measurement assignment, some regulators have questioned whether:

1. the analysts completing such assignments were adequately qualified and
2. the procedures and analysis across the business valuation profession were consistent.

The formation of the CEIV credential was designed to produce a roadmap for practitioners, "to conduct more consistent, higher quality, and better documented valuation engagements."[3]

In order to establish the necessary guidance and desired results for the CEIV credential, a task force was formed to focus on the relevant fair value measurement issues facing the business valuation profession.

Figure 1
CEIV Credential
American Society of Appraisers Credential Pathway

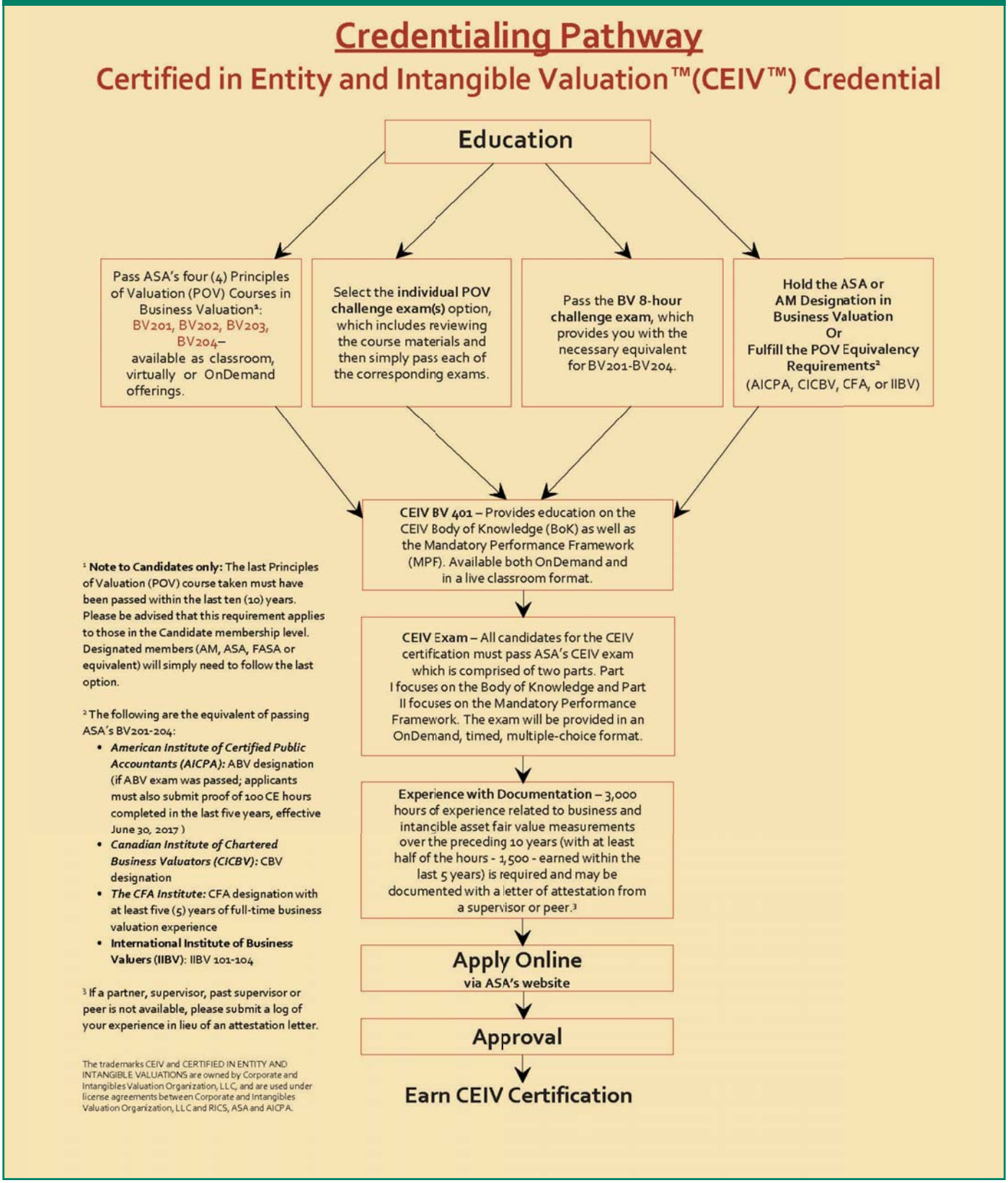
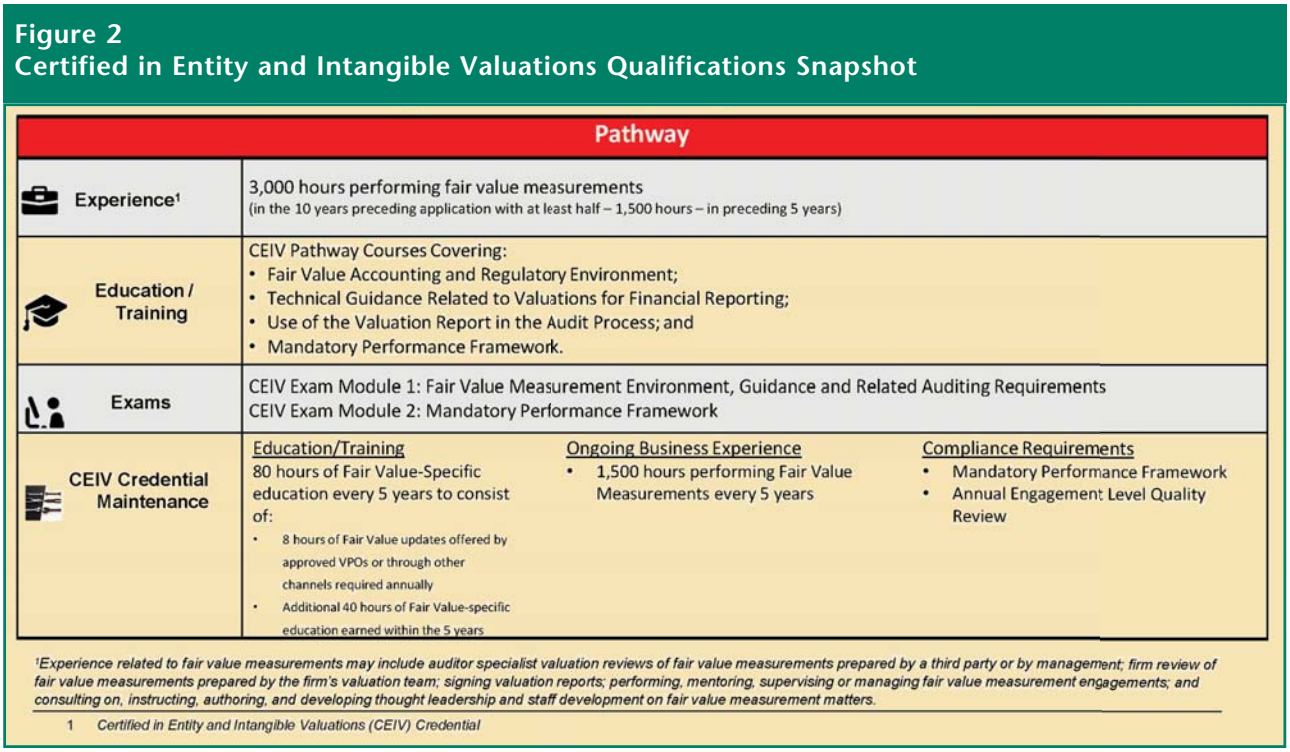


Figure 2
Certified in Entity and Intangible Valuations Qualifications Snapshot



Pathway	
Experience[1]	3,000 hours performing fair value measurements (in the 10 years preceding application with at least half – 1,500 hours – in preceding 5 years)
Education / Training	CEIV Pathway Courses Covering: • Fair Value Accounting and Regulatory Environment; • Technical Guidance Related to Valuations for Financial Reporting; • Use of the Valuation Report in the Audit Process; and • Mandatory Performance Framework.
Exams	CEIV Exam Module 1: Fair Value Measurement Environment, Guidance and Related Auditing Requirements CEIV Exam Module 2: Mandatory Performance Framework
CEIV Credential Maintenance	Education/Training 80 hours of Fair Value-Specific education every 5 years to consist of: • 8 hours of Fair Value updates offered by approved VPOs or through other channels required annually • Additional 40 hours of Fair Value-specific education earned within the 5 years Ongoing Business Experience • 1,500 hours performing Fair Value Measurements every 5 years Compliance Requirements • Mandatory Performance Framework • Annual Engagement Level Quality Review

[1]*Experience related to fair value measurements may include auditor specialist valuation reviews of fair value measurements prepared by a third party or by management; firm review of fair value measurements prepared by the firm's valuation team; signing valuation reports; performing, mentoring, supervising or managing fair value measurement engagements; and consulting on, instructing, authoring, and developing thought leadership and staff development on fair value measurement matters.*

1 *Certified in Entity and Intangible Valuations (CEIV) Credential*

Performance Requirements

The task force was a collaboration of VPOs and other concerned groups that intended to develop, implement, and maintain the CEIV credential. In order to accomplish the desired objectives, the task force formed the following four work streams:

- Governance and coordination
- Performance requirements
- Qualifications
- Quality control

Each of the above work streams had its own set of responsibilities and guidelines. The performance requirements work stream (the "PRWS") was tasked with developing the MPF. The concerns and questions by U.S. capital market regulators (for example) related to the qualifications of analysts performing fair value measurements lead to additional scrutiny and, in essence, a need to develop a set of standards to ensure an adequate scope of work and documentation for these engagements.

This structure, as related to the CEIV credential, became the responsibility of the PRWS.

The framework for this structure was incorporated in the following definitions:[4]

- Professional Standards. Professional standards are standards that encourage professional behavior. Examples are codes of ethics and codes of conduct that require acting competently, independently, objectively, and transparently. These can also be considered standards that define the qualities of a professional: ethical, independent, objective, having requisite skills, educated, experienced, tested, trained, and credentialed or licensed.

  Professional standards focus on characteristics of individual professionals and their conduct.

- Technical Standards. Technical standards are those that address the *how to* of work that must be done to prepare a professional work product. These standards address the technical correctness of the work product by considering appropriate input factors, application of methods and techniques, and reporting guidelines.

  Both mandatory standards and voluntary guidance have been developed around technical issues in valuation in general and, to a lesser extent, around fair value measurement.

- Performance Framework. Performance framework contains requirements that cover how much work should be performed in order to prepare a professional work product. The performance framework addresses scope of work, extent of documentation and analysis, consideration of contrary evidence, and documentation in

both the report and the supporting working papers.

Alternatively, the performance framework establishes the extent to which valuation professionals perform their work in terms of depth of analysis and documentation.

The practical application of the MPF is presented in a document published by the Corporate and Intangibles Valuation Organization, LLC.[5]

The conclusion regarding the structure and the application of the MPF is summarized as follows:

> Valuations for financial reporting purposes completed in a professional manner require adherence to a consistent set of professional, technical, and ethical standards as well as a set of guiding principles that help define how much work is necessary in order to provide supportable and auditable fair value measurements that serve as the basis for management's preparation of financial statements for financial reporting purposes.

The following section discusses the guidance implementation of the MPF for both CEIV credential holders as well as other valuation professionals performing fair value measurement analyses.

Mandatory Performance Framework

As described in the previous section, the increased importance and expanded use of fair value measurements highlighted a growing need in the valuation profession. Fair value measurements, much like any specialized discipline, require the analyst to possess certain knowledge, experience, and tools that may not be common to all valuation practitioners. The CEIV credential was established as a way to help address these issues and needs in the valuation profession.

The PRWS was tasked to develop a framework to provide guidance for analysts in order to produce more uniform and consistent analyses, methods, and work products when performing fair value measurements. A key component to satisfy these needs was the introduction of the MPF.

Overview

All individuals holding a CEIV credential will follow the MPF. And, the application of the MPF for the CEIV credential (the "Application") will establish guidelines and standards to assist analysts in providing supportable and auditable fair value measurements.

Although it is not required for a non-CEIV valuation professional, the PRWS believes that the MPF and the Application should be considered *best practice* for fair value measurements prepared for financial accounting purposes.

The MPF includes the following sections:

- Section 1, Preamble. Provides an overview of who must adhere to the MPF and when it should be followed
- Section 2, Valuation Engagement Guidance. Establishes the documentation requirements
- Section 3, Mandatory Performance Framework Glossary. Definition of terms
- Section 4, Authoritative and Technical Guidance. List of accounting, auditing, and valuation standards

The Application provides guidance for analysts on how to apply the MPF in the valuation of specific subject interests. As stated in the Application, "The guidance is not designed to show valuation professionals how to perform a valuation; instead its purpose is to provide valuation professionals with guidance on how much work, what level of rigor, and what extent of documentation are required when performing valuation assignments for financial reporting purposes."[6]

The following sections provide a summary of the guidance included in the Application.

General Valuation Guidance

This section of the Application identifies the most common concepts, scope of work, and documentation that an analyst should understand when performing a fair value measurement for financial accounting purposes. As indicated previously, the Application does not address valuation theory or provide "how-to" examples or case studies.

The three significant topics included in this section are as follows:[7]

1. Fair value measurement
2. Selection of valuation approaches and methods
3. Prospective financial information

Fair Value Measurement

This section of the Application recognizes the guidance provided in Financial Accounting Standards

Board ("FASB") Accounting Standards Codification ("ASC") 820—Fair Value Measurement ("ASC 820").

An important component of ASC 820 is that the transaction price is not presumed to represent fair value. As a result, as required in the Application, the analyst should evaluate and document his or her assessment of fair value.

Fair value is based on the perspective of a market participant, and the analyst should document the relevance, rationale, and support for the inputs used to estimate fair value. Additionally, any changes in valuation approaches or methods between the initial transaction date and subsequent measurement dates should be documented.

Selection of Valuation Approaches and Methods

Accounting and valuation guidance recognize the three generally accepted property valuation approaches: income, market, and cost. Within the valuation profession, it is generally recognized that the analyst should identify the most appropriate valuation approaches and methods based on the facts and circumstances of the engagement and the subject interest.

Regarding the selection and reconciliation of methods used, the Application indicates the following:[8]

> If developed correctly and with good information, the results from each approach or method should provide indications of fair value that are reasonably consistent with each other. If the results are not reasonably consistent, further analysis is generally required to evaluate the factor or factors causing the inconsistencies (for example, one method may be more appropriate than another method based on the facts and circumstances).

As with any valuation assignment, the analyst should reconcile the indicated values from the various methods relied upon in order to establish a reasonable and supportable conclusion of value. Depending on the facts and circumstances of the engagement, this may result in reliance on a single method or a combination (i.e., weighting) of alternative methods. The final determination is necessarily left to professional judgement and should be documented and supported by the data available.

The Application provides specific documentation that must be included in the work file and consists of the following:

1. The process and rationale for selecting the valuation methods
2. The process and rationale for selected weighting of each method
3. A reconciliation of the results including a clear explanation of any apparent inconsistencies in the analysis, internal documentation, or data
4. An explanation of whether the conclusion is based on one or multiple approaches based on the results of items 1 through 3.

Prospective Financial Information

This topic identifies the responsibility of the analyst to evaluate whether the prospective financial information ("PFI") provided by management is reasonable and supported by the data available.

If the analyst determines that the PFI is not representative of expected value or supported by the information available, the Application states that the analyst may elect to initiate one or more of the following:[9]

- Request management to revise its PFI
- Adjust assumptions in the PFI
- Use another present value method
- Use an entirely different approach than the income approach

PFI is a broad term which may include complete financial statement projections or one or more elements of forward-looking financial information. The Application identifies an important role of the analyst is to, "review the PFI with the appropriate level of professional skepticism. . . . Valuation professionals should understand and document how the PFI was developed by management."[10]

The Application goes on to point out that the analyst should (1) understand the purpose for which the PFI was prepared and (2) whether the PFI was prepared using market participant assumptions. Additionally, the analyst should consider whether management bias may exist.

The analyst should identify and assess the reliability of the key components of the PFI which as stated in the Application may include, but are not limited to the following:[11]

- Base year metrics
- Revenue forecasts or revenue growth rates
- Gross margins
- Earnings before interest, taxes, depreciation, and amortization ("EBITDA") or earnings before interest ("EBIT") margins
- Depreciation and amortization (book and tax)

- Effective tax rate
- Capital expenditures
- Debt-free net working capital requirements
- Other metrics where applicable

Regarding the responsibility of the analyst to evaluate the PFI provided by management, the Application provides the following guidance:

- Comparison of PFI for an underlying asset of subject entity to expected values of the entity cash flow
- Frequency of preparation
- Comparison of prior forecasts with actual results
- Mathematical and logic check
- Comparison of entity PFI to historical trends
- Comparison to industry expectations
- Check for internal consistency

The guidance provided in the Application results in a significant level of required documentation related to the PFI. Clearly, the PFI is an important component when using the income approach and the analyst should consider the purpose for which it was prepared, whether the PFI reflects the market participants' perspective, test the PFI for reasonableness, and document the basis for any necessary adjustments.

Business Valuation Guidance

This section of guidance within the Application recognizes that, while there are unique facts and circumstances for every valuation engagement, there are core considerations an analyst should consider and document when performing fair value measurements for financial reporting purposes.

The significant topics covered in this section of the Application include the following:[13]

1. Discount rate derivation
2. Growth rates
3. Terminal value multiple methods and models
4. Selection of, and adjustments to, valuation multiples
5. Selection of guideline public companies or guideline company transactions
6. Discounts and premiums

The above list represents common considerations encountered by analysts. The following sections provide a summary of the guidance identified in the Application when performing fair value measurements.

Discount Rate Derivation

This section contains the typical requirements and generally recognized documentation standards to support the discount rate utilized by the analyst. The most detailed requirements within this section of the Application relate to the rational and documentation of the data and factors considered when estimating the amount of any company-specific risk adjustment.

This specific adjustment often includes the analyst's qualitative analysis and professional judgment and, as a result, is typically the most subjective component of the discount rate (or cost of equity) estimate for the company.

Once again, there is no specific guidance in the Application on the process an analyst should use to estimate a company-specific risk adjustment, but rather, a requirement that documentation within the work file should identify the basis for the assessment and support the concluded estimate.

Growth Rates

As stated in this section of the Application, "The growth rate can be one of the most significant inputs used in the application of an income approach."[14]

Analysts in the valuation profession are aware of the significant impact on value that even minor changes to the estimated growth rate can have. Documentation of this estimate is important.

Specific examples are not provided in the Application, but there is emphasis regarding the analyst's responsibility to document the rationale and reasonableness of the selected growth rate. Additional emphasis is provided which cautions the analyst from assuming that a management-provided five-year forecast (for example) represents the appropriate point where cash flow should be capitalized into perpetuity.

The Application indicates that an analyst should perform additional analysis to determine if it is reasonable to estimate a terminal value at the end of the company forecast period. Similarly, the analyst should not assume the estimated terminal growth rate is appropriate after the forecasted period without performing additional analysis.

Although it is often a generally accepted practice in the valuation profession to utilize a company's forecast period cash flow followed by a terminal

period capitalization into perpetuity, the Application clearly cautions the analyst to document in writing in the work file (or report) the rationale, support, and reasonableness of the estimated long-term growth rate and the appropriateness for the income approach model utilized.

Terminal Value Multiple Methods and Models

The Application provides a partial list of acceptable terminal value methods or models; the most well-recognized being the Gordon growth model.

However, in addition to such a perpetual model, which is theoretically recognized as an income approach method, the Application recognizes what would generally be considered market approach methods such as a terminal exit multiple (i.e., revenue or EBITDA) or a value driver formula as acceptable.

As with the other sections included in the Application, the intent was not to develop a prescribed method or process for valuing the relevant business or subject interest, but rather to provide guidance regarding the need to test, document, and support the analysis completed recognizing that each assignment involves a specific set of facts and circumstances to be considered by the analyst.

As a result, the method(s) utilized along with the assumptions relied upon should be documented in the analyst work file and should conclude a reasonable and supportable result.

Selection of, and Adjustments to, Valuation Multiples

Within the market approach to business valuation, one valuation method is the guideline public company method. This business valuation method estimates the value of the subject interest or business based on:

1. a comparison of an earnings measure(s) between the subject company and the selected group of guideline companies,
2. consideration of the related market pricing multiples for the guideline companies, and
3. the estimation of an appropriate market-based pricing multiple to apply to the earnings measure(s) of the subject company.

In order to apply this valuation method appropriately, the analyst should:

1. properly calculate the market pricing multiples for the guideline companies and
2. develop a basis for selecting an estimated pricing multiple for the subject company.

The Application cautions that, "the valuation professional must ensure the multiples selected have a logical relationship to the fair value required by market participants."[15]

Documentation should include the process used to select the multiples including any comparative analysis performed and explanations regarding the basis and rationale for the earnings measures, time periods, and multiples ultimately selected and relied upon.

Although there is not specific guidance provided in the Application, the emphasis placed on a recognition by the analyst that the multiples selected should have relevance to the fair value from the perspective of a market participant provides a distinction recognized by the PRWS that fair value measurements may involve certain peculiarities. The MPF and the CEIV credential attempt to ensure a more consistent, better documented analysis.

Selection of Guideline Public Companies or Guideline Company Transactions

The guideline public company method and the guideline company transaction method are the two most relevant valuation methods within the market approach for valuations used in financial accounting according to the Application. As with other valuation assignments, the analyst should use professional judgement when assessing the relevance of the method and guideline companies selected for fair value measurements.

The documentation requirements in this section are commonly recognized in the valuation profession and include an understanding of the subject entity's business (including relevant characteristics for comparison to guideline companies), the screening process used to develop the final list of guideline companies, and the identification and description of the selected guideline companies.

Discounts and Premiums

It is commonly recognized in the valuation profession that the value of an ownership interest in an entity may be estimated:

1. on either a controlling or a noncontrolling ownership interest basis and
2. on either a marketable or a nonmarketable (i.e., less than fully marketable) ownership interest basis.

The related discounts for lack of control and lack of marketability are two commonly recognized valuation discounts related to an ownership interest in an entity.

Although the documentation requirements included in this section of the Application are common and relevant to the valuation of all business interests (not strictly fair value measurements), the MPF specifically states that the valuation professional "must" document the following within the work file:[16]

- An understanding of the subject company's capital structure and each class of capital
- The rationale for why a premium or discount is appropriate for the valuation methods relied upon
- The rationale for selection of the methodology to quantify the magnitude of the premium or discount
- A discussion of how market data is used or adjusted for the subject company
- How the discount or premium was applied to the relevant valuation method
- Identification of resources used and any quantitative or qualitative considerations

The documentation requirement for each of the above components emphasizes the level of detail and responsibility placed on the CEIV or other valuation professional to be in compliance with the MPF.

Valuation of Intangible Assets

Similar to the business valuation guidance discussed in the previous section, the Application recognizes that each intangible asset valuation engagement has a unique set of facts and circumstances. Nonetheless, the Application provides guidance on the common components.

This Application section covers the following topics:[17]

- Identified assets and liabilities
- Operating rights
- Life for protection period
- Customer-related intangible assets
- Royalty rates
- Contributory asset charges
- Tax amortization benefit
- Discount rates/internal rate of return/weighted average return on assets
- Reconciliation of intangible asset values
- Contract liabilities
- Inventory

This section of the Application recognizes the guidance provided in FASB ASC topic 805—Business Combinations ("ASC 805"). A key component of ASC 805 emphasized in the Application is the recognition of value and analysis from the perspective of a market participant. As a result, the analyst should document in the work file all market participant assumptions as well as the rationale for adjustments and assumptions which may be indicated by management to represent strategic considerations and reconciliation to a market participant perspective.

One notable section relates to the discussion of estimating the economic life of noncontractual customer-related intangible assets. The estimated useful economic life ("UEL") is described as the period over which cash flows are expected, based on the appropriate market participant's expected economic life, not on the specific owner's expectation. Consequently, the analyst should document the methods, assumptions, and inputs used to determine the UEL and projected period of future cash flow.

A noteworthy disclaimer emphasized in the Application states the following:[18]

> An economic life is estimated only for the purpose of valuing the subject interest. Although this information may assist management in its determination of the amortizable life of the subject interest, it is not the valuation professional's responsibility to conclude a specific life for amortization purposes. Thus, the valuation professional's report should not provide any conclusion of amortization life and must clearly state that determining the pattern of amortization life of the subject interest is management's responsibility.

This matter is literally highlighted in the Application to emphasize that, while management may retain a valuation professional for consultation of amortization life, management is *always responsible* for the final determination. However, there is no guidance or discussion regarding what factors or circumstances may result in a difference between the economic life and the amortization life of the subject intangible asset.

Detailing each of the remaining specific areas of guidance in this section is beyond the scope of this discussion. However, as with the previous sections discussed, the documentation requirements for the valuation of intangible assets is significantly detailed and designed for the analyst to consider and document the valuation process utilized as well as the rationale for the analysis completed in order to develop a supportable, auditable fair value measurement.

"[T]he CEIV credential was designed and established to set itself apart and recognize those individuals with specific expertise in the area of fair value measurements for financial reporting purposes."

Quality Monitoring

CEIV credential holders will be required to submit to an annual, proactive, ongoing engagement level Quality Monitoring Program ("QMP"). The goal of the QMP is to provide confidence to markets and regulators that CEIV credential holders are performing high quality valuations in compliance with the MPF.[19]

Although the review process is still in its initial stages, it is currently understood that the QMP will be structured so that information may be gathered and evaluated to ensure the core areas of the MPF are being followed. The QMP includes a combination of reviews of CPE requirements, work performed, and complaints received (if applicable). All CEIV credential holders will be required to undergo a QMP review no sooner than nine months after receiving the CEIV designation.

Beyond that, it is expected that an annual risk-based procedure will be implemented in order to determine the relevant level of ongoing review for each individual. Deficiencies in the review process will result in further investigation by a Review and Disciplinary Panel ("RDP") to determine any potential sanctions on an individual.

For firms that have demonstrated internal firm quality controls through enrollment in AICPA Peer Review (for example), the VPOs may implement a hybrid approach providing a sampling of firm reports to be reviewed for compliance. The objective of the QMP is to demonstrate compliance with the MPF.

The CEIV QMP will officially launch on July 1, 2019, for engagements dated January 1, 2018, or later.

On an annual basis, CEIV credential holders will complete a questionnaire to provide information on the work completed in the previous year. Reviews will be performed by independent reviewers employed or contracted by the VPOs.

The QMP will include the following three levels of review:

- Level One—Completed by a VPO reviewer on site or through a remote review. If deficiencies are noted, the report will be sent to an RDP for a second level of review.
- Level Two—The RDP will review the findings, hear from the subject CEIV, and determine the necessary response.
- Level Three—This level will involve an independent appeal to provide due process to the subject CEIV.

Upon completion of each QMP, an exception report will be issued with one of the potential grades presented in Exhibit 1.[20]

The QMP associated with the CEIV credential is notably more onerous and demanding on those practitioners than the ongoing CPE requirements for other licensed valuation professionals. With the official QMP launch not set until next year, it is possible that modifications to the current format could be instituted before implementation. Regardless, it appears reasonable to conclude that a CEIV credential holder receiving a "good practice with observations" report grading, should be viewed as a best practices valuation professional in the area of fair value measurements for financial reporting purposes.

Summary and Conclusion

As a newly formed professional credential, the CEIV credential was designed and established to set itself apart and recognize those individuals with specific expertise in the area of fair value measurements for financial reporting purposes. The initial certification standards, ongoing requirements, and annual quality monitoring is expected to differentiate the CEIV from other analysts.

As a CEIV, the analyst will be required to comply with the guidelines and requirements presented in the MPF. It is also expected that non-CEIV valuation practitioners will self-comply with the MPF in order to implement best practices and produce supportable and auditable fair value measurements with similar expertise as a CEIV credential holder.

The CEIV credential and the MPF appear to be a more than adequate response to regulatory concerns and public perceptions regarding professional competence in conducting fair value measurements for financial accounting purposes.

Notes:

1. http://www.appraisers.org/credentials (link "Related Procedures" for CEIV Certification).
2. https://ceiv-credential.org (link "Snapshot: Pathway to qualification").
3. *Mandatory Performance Framework for the Certified in Entity and Intangible Valuations Credential*, Corporate and Intangibles Valuation Organization, LLC, Version 1.0 Issued January 2017.

Exhibit 1
Quality Monitoring Exception Report Grading

Report Grading	Definition of Grading	Potential Outcomes
Good practice with observations	Generally good practice in place demonstrated by quality processes and work performed to product report	Longer interval between reviews due to high quality
Observations	Improvements are recommended in order to achieve good practice but findings did not highlight any fundamental issues involving ethics or competency	Recommendations made and agreed actions in place to make necessary improvements Corrective education identified
Findings noted	Minor ethical or competency issues; other issues that rise to the level of affecting the creditability of an assignment	Recommendations made and agreed actions in place to make necessary improvements Formal reprimand, corrective education, short suspension, payment of costs, follow up review required within six months due to imposed remediation (to be paid for by the CEIV credential holder)
Significant finding noted	Fundamental quality or ethical issues found, professional does not meet the quality needed to remain accredited	Recommendations made Sanctions possible including formal reprimand, corrective training, significant suspension, payment of costs, removal from accreditation If sanction is less than removal from accreditation, follow-up review required within six months due to imposed remediation (to be paid for by the CEIV credential holder)

4. Ibid., iv.
5. *Application of the Mandatory Performance Framework for the Certified in Entity and Intangible Valuations Credential*, Corporate and Intangibles Valuation Organization, LLC, Version 1.0 Issued January 2017
6. Ibid., 1.
7. Ibid., 2.
8. Ibid., 4.
9. Ibid., 5.
10. Ibid., 6.
11. Ibid., 7.
12. Ibid., 7–8.
13. Ibid., 10.
14. Ibid., 11.
15. Ibid., 13.
16. Ibid., 15.
17. Ibid., 16.
18. Ibid., 19.
19. https://ceiv-credntial.org (link "CEIV FAQs").
20. *Certified in Entity and Intangible Valuations Credential Quality Monitoring Frequently Asked Questions*, American Institute of Certified Public Accountants and Royal Institute of Chartered Surveyors, 2018.

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Accredited in Business Valuation Credential Now Open to Non-CPA Professionals

Nathan P. Novak

On May 22, 2018, the American Institute of Certified Public Accountants ("AICPA") opened its Accredited in Business Valuation ("ABV") professional credential to individuals who are not certified public accountants ("CPAs"). Historically, the ABV credential was reserved specifically for CPA members of the AICPA. The previous CPA requirement limited the access for the well-known valuation credential to a subset of business valuation practitioners. This discussion provides an overview of (1) the ABV credential and (2) the implications of the AICPA amendment to the valuation profession.

Introduction

Since its inception in 1997, the Accredited in Business Valuation ("ABV") professional credential has been a well-respected business valuation credential.

Along with other business valuation credentials, such as the Accredited Senior Appraiser ("ASA") credential that is granted by the American Society of Appraisers, obtaining the ABV designation represents an accomplishment demonstrating the valuation analyst's experience, competence, and commitment to professional standards.

Until May of 2018, the ABV credential was reserved exclusively for certified public accountant ("CPA") members of the American Institute of Certified Public Accountants ("AICPA").

Recently, the AICPA board has decided to award the ABV professional credential to qualified non-CPA associate members of the AICPA.

In other words, other qualified financial professionals may now meet the requirements and apply to become credentialed as an ABV—without first obtaining a CPA practice license.

Overview and Benefits of the ABV Credential[1]

According to the AICPA website, "the ABV credential is granted exclusively by the AICPA to CPAs and qualified finance professionals. The ABV credential gives valuation professionals an edge and sets them apart from others by arming them with the tools and resources needed to provide the best service to their clients and employers."

The ABV credential essentially has two primary benefits or purposes:

1. Obtaining the credential demonstrates to prospective clients or employers that the credential holder has a certain level of competence and experience in the area of business valuation, in addition to adherence to strict professional standards, ethics, and guidelines.
2. Obtaining the credential grants access to a community of valuation professionals with similar interests and practices.

As discussed further below, the process for obtaining the ABV credential includes certain requirements such as (1) having a minimum amount of business valuation experience, (2) completing education, (3) having a bachelor's degree or equivalent, and (4) passing a professional conduct course as well as an exam.

In addition, ABV holders are required to abide by the AICPA Statements on Standards for Valuation Services ("SSVS"). SSVS outlines certain professional standards and acceptable practices when performing business valuation analyses.

Accordingly, simply by obtaining the ABV credential, a professional communicates to prospective clients, employers, and the public in general that he or she is qualified based on those accomplishments to perform business valuation assignments.

In addition, the ABV credential (through AICPA membership) grants access to a community of valuation professionals. For example, the AICPA offers more than 50 conferences and workshops annually, for which AICPA members and ABV holders are granted access at a significant price discount. There are also volunteer opportunities for various AICPA governing bodies, committees, or panels, which provide additional opportunities to build a professional network and demonstrate thought leadership.

Requirements of the ABV Credential[2]

This section discusses the steps to take—and requirements needed—to obtain the ABV credential under the new guidelines. It focuses on the requirements for a non-CPA financial professional in light of the recent modifications to the ABV credentialing process.

First and foremost, because the ABV is offered through the AICPA, potential candidates are required to become members of the AICPA to apply for the credential. For non-CPAs, this means becoming a non-CPA associate member of the AICPA. There are several ways to meet the criteria to apply for AICPA membership. For nonaccountants, a finance professional employed by a business valuation firm may be sponsored by a regular voting member of the AICPA.

Or, more broadly, any professional who is eligible to obtain an AICPA credential may apply for membership. That is, a professional who is presumably eligible to meet the requirements for the ABV credential may apply for non-CPA associate membership with the AICPA.

Beyond AICPA membership, the first requirement in the ABV credentialing process relates to education and experience. All non-CPA candidates applying for the ABV credential are required to hold a bachelor's degree or equivalent from an accredited college or university, as well as complete the AICPA professional "Conduct and Standards Education for Finance Professionals" course.

In addition, all candidates in the ABV program will complete 75 hours of valuation-related continuing professional development within the five-year period preceding the date of the credential application. There are numerous routes to fulfilling the continuing professional development and education requirement, such as attending industry conferences; sitting in on business valuation webcasts, speeches, or panels; or taking self-directed continuing education courses.

The AICPA and other professional organizations (such as the American Society of Appraisers) offer numerous resources to further professional education and meet the 75-hour requirement.

There is also a business experience requirement to obtain the ABV credential. This requirement for non-CPA members is much stricter than for CPAs—non-CPA candidates are required to obtain a minimum of 1,500 hours of business valuation experience within the five-year period preceding the date of the credential application, whereas CPA candidates are only required to obtain 150 hours of experience over the same period.

In general, there are typically three venues through which an ABV candidate may obtain the requisite business experience:

1. via the public accounting and/or consulting sector,
2. via the business and industry field, or
3. via academia.

Some examples of relevant work experience include performing valuation services as an employee of a financial services firm, performing valuation services for litigation or arbitration, or serving as an instructor teaching relevant business valuation materials.

Finally, in order to be accepted for the ABV credential, a candidate must pass the ABV examination: a two-part, modular exam consisting of a 3.25-hour, 90 multiple-choice question test per exam module. The exam modules may be taken separately, but must be passed within 12 months to receive credit, and the exam is offered both online in a proctored environment or in-person at one of 300 locations nationwide.

Of particular note, there are certain other professional credentials which allow a candidate to skip the ABV examination requirement. That is, holders of the (1) Accredited Member ("AM") credential through the American Society of Appraisers, (2) ASA credential through the American Society of Appraisers, (3) Chartered Financial Analyst ("CFA") credential through the CFA Institute, or (4) the Chartered Business Valuator ("CBV") credential through the Canadian Institute of Chartered Business Valuators are not required to take the ABV exam as part of the credentialing process.

The requirements discussed above illustrate the competency that a professional must demonstrate to even be considered eligible for the ABV credential. The idea being that, by meeting the above requirements, a professional has:

1. demonstrated a significant amount of experience performing valuation work,
2. obtained a significant amount of valuation-related education,
3. demonstrated a commitment to professional ethics and standards, and
4. proved a certain level of knowledge with regard to valuation analyses.

Once the above requirements are met, a candidate may then fill out the application form and be eligible for consideration for the ABV credential.

Implications of Expansion of the ABV Credential

According to the AICPA website, the new eligibility was approved because "expanding eligibility for the ABV credential helps promote consistency, quality, and transparency in the valuation marketplace."[3]

CPA led-firms and other professional firms are looking for a single organization that can provide appropriate training, credentialing, and ongoing support for their employees. In the past, that function through the AICPA ABV credential was limited to CPAs, but is now more comprehensive and allows access to other qualified professionals.

On its surface, the decision by the AICPA to expand the ABV credential to non-CPA financial professionals makes intuitive sense. According to a study published by Business Valuation Resources in 2012, of the surveyed business valuation practitioners, less than 30 percent held a CPA certification.[4] In other words, a significant majority of financial professionals performing business valuation assignments are non-CPAs.

That is, for many years, the ABV credential was limited to a relatively small subset of professionals within the business valuation profession. It is somewhat peculiar to have a credential that is practically inaccessible to over 70 percent of the professionals who regularly perform the types of analyses that the credential caters to.

Accordingly, while other well-recognized business valuation or financial credentials, such as the ASA credential or CFA credential, are open to a wide range of business professionals to meet the various requirements, the ABV was one of the few limited to those who have a very specific type of license and education (i.e., accounting).

Through the modification to the ABV credentialing process, the AICPA is attempting to expand the offering to be more inclusive, as qualified business valuation practitioners often come from a variety of professional fields and backgrounds, in addition to accountancy. The change gives qualified business valuation professionals another option when choosing which credential or credentials he or she would like to pursue to demonstrate success in the business valuation profession.

Another anticipated side effect will simply be the increased knowledge and experience of professionals within the business valuation profession and increased positive perception of the profession in general. As discussed above, the ABV credentialing process involves numerous requirements for education, experience, ethics, and business valuation competence.

Accordingly, by going through the rigorous process and meeting those requirements, a professional will become more knowledgeable and better equipped to perform quality business valuation analyses.

More professionals with the ABV credential means more professionals with relatively greater knowledge and experience, which leads to higher quality work products, happier clients, and a more positive perception of the business valuation profession.

Finally, from a practical standpoint, expanding the ABV credential to non-CPAs will likely have the indirect effect of increasing both the awareness of the ABV credential and the membership and network reach of the AICPA.

In other words, there will likely be more applicants and professionals that will obtain the ABV credential, which will increase public awareness of the credential and the benefits it provides. And, by increasing the community of AICPA members, there will be increased networking potential within the AICPA as well as increased resources to help members further develop.

However, despite some of the potential positive impacts discussed above, there are many professionals who have expressed concern with the AICPA decision to expand the credential to non-CPAs.

On June 18, 2018, less than a month after the AICPA announced its decision, various licensed or retired CPAs published an open letter criticizing the AICPA decision to change the certification credentialing process.[5]

The open letter was signed by a number of prominent ABV holders who are also CPAs and urged the AICPA to reconsider the decision and change the credentialing process back to what it was prior to the expansion.

The letter takes strong positions that, by expanding access to the credential to non-CPAs, it will (1) dilute the credibility of the credential, (2) confuse the public, (3) harm the reputation of CPAs, and (4) impact the financial well-being of current and future CPAs who practice business valuation by helping non-CPA appraisers to better compete, among other criticisms.[6]

Further, in a survey of nearly 2,000 professionals, approximately 94 percent of respondents were not in favor of the AICPA changing the ABV criteria to admit non-CPAs.[7]

However, nearly all of the survey respondents were also CPAs and most were current ABV holders, so the strong negative survey response is somewhat unsurprising given the previously discussed open letter and issues that CPAs have cited with the change in the credentialing process.

The survey also allowed respondents to comment, and the most prevalent remark was that the survey participants felt that the change to the ABV credential will dilute both the CPA and ABV brands and put the AICPA high ethical and professional standards at risk.

Many respondents stated that they worked hard to achieve the CPA and ABV credentials and some felt betrayed by the change that will allow non-CPAs to "piggyback on [their] good name."[8]

A small percentage of the survey respondents agreed with the AICPA decision, stating that a CPA designation is not necessary to provide quality business valuations and that there are many well qualified non-CPAs who should be welcomed as members of the AICPA.

In response to the above criticism, the AICPA responded with a statement explaining that one reason for the change was due to recognition that many qualified accountants or financial professionals perform business valuation work, but do not plan to perform audits or sit for the CPA exam.

The AICPA believes that expanding the credential will "not only help maintain the high professional and valuation standards established by the AICPA but will help elevate the entire valuation profession," and that opening up the credential, which has extensive eligibility requirements discussed above, is "preferable to having those qualified professionals seek a less rigorous credential in valuation."[9]

Ultimately, the points made in the open letter and survey responses described above are understandable. It is understandable that CPA/ABV holders are concerned at the lack of transparency and seemingly quick decision by the AICPA to institute such a major change in an important credential.

And, it is understandable that current CPA/ABV holders may feel threatened both by the potential dilution of the credential or a sudden influx of new

professionals who obtain the credential, thus making it potentially appear somewhat less exclusive or elite.

After obtaining any professional credential, it is reasonable to be concerned when the credentialing organization seemingly lowers the barriers or requirements to obtain the credential or makes it seemingly easier for others to obtain the same credential.

However, the criticisms also imply somewhat of a lack of faith in the process and requirements to obtain the credential. The underlying purpose of the ABV credential is for the individual who obtains it to demonstrate extensive experience, education, knowledge, and competency in the field of business valuation.

In other words, if a professional is able to meet those strict requirements, that accomplishment and demonstrable success should be validated and rewarded, regardless of any additional qualifications or certifications he or she may have.

And, the opponents of the decision may be able to take some solace in the fact that certain requirements, such as the amount of work experience needed, are significantly stricter for non-CPA applicants than for CPA applicants.

Much of the resistance from CPAs appears to presume that CPAs who currently hold the ABV credential are generally more qualified to perform business valuations than an otherwise prospective ABV holder who is not a CPA. Professionals hold the CPA license in high regard—rightfully so, as it is a long and rigorous process to obtain such a credential.

However, the disagreement surrounding the AICPA decision seems to imply that holders of the CPA license should be the only professionals considered qualified enough to also hold the ABV credential. Again, this implication is somewhat faulty, as there are numerous well-respected business valuation professionals who do not also hold a CPA license.

And, as previously discussed, CPAs represent a significant minority of the universe of business valuation professionals who perform valuation work on a day-to-day basis. It appears unreasonable to imply that only CPAs should be capable of becoming ABV holders or, to put it bluntly, that the 70-plus percent of valuation professionals who are non-CPAs are not qualified to hold the designation.

It is not so much that the AICPA has made it easier to obtain the ABV credential—in fact, if anything, the requirements are relatively more difficult for non-CPA applicants. Strictly because more professionals will have a chance to obtain the credential, that does not necessarily make the credential relatively less valuable or prestigious.

Instead, the decision simply grants a larger pool of qualified professionals the opportunity to go through the ABV process and demonstrate competency in the business valuation profession.

Summary and Conclusion

The ABV credential is a well-recognized business valuation credential that demonstrates knowledge and experience in the field of business valuation. For over 20 years, the credential was limited strictly to CPAs, but the recent decision by the AICPA to expand it to non-CPA holders has made waves throughout the business valuation profession.

While there is no doubt that some non-CPAs who practice business valuation view this as a positive move for the profession as a whole and will take advantage of the new credentialing opportunity, current CPA/ABV holders are understandably wary of the impact it will have on the credential they worked hard to achieve.

Time will tell whether or not the recent changes to the ABV credential have a positive overall impact to the business valuation profession. And, given the strong reactions from the professional community, both positive and negative, it is uncertain whether or not the AICPA will make further modifications to the ABV credential in the near future.

Notes:

1. Information obtained from the AICPA website (www.aicpa.org).
2. Ibid. and the *Application Kit: A Guide to the AICPA Accredited in Business Valuation Credential*.
3. www.aicpa.org.
4. *BVR's 2011/2012 Business Valuation Firm Economics & Best Practices Guide*, Business Valuation Resources, 2012.
5. Dr. Michael Crain, "Open Letter from CPAs on the American Institute of Certified Public Accountants Change to Their Professional Certification in Business Valuation (ABV)," www.medium.com, June 18, 2018.
6. BVWire Issue #189-3, June 20, 2018.
7. BVWire Issue #190-2, June 18, 2018.
8. Ibid.
9. Ibid., #189-3, June 20, 2018.

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On Our Website

Recent Articles and Presentations

Robert F. Reilly, a managing director of our firm, delivered a presentation to the 48th Annual Taxation Conference: Appraisal for Ad Valorem Taxation of Communications, Energy, and Transportation Properties. The conference was held in Wichita, Kansas, on July 29–August 2, 2018. The title of Robert's presentation is "15 Differences between Unit Valuations, Summation Valuations, and Business Valuations."

Robert's presentation considers both the conceptual and the practical differences among these three different (but related) types of valuation analyses. He reviews the different bundles of ownership interests in each type of analysis. Robert explores application of the three generally accepted valuation methods within each type of analysis. He reviews common misconceptions about unit principle valuation analyses.

John C. Ramirez, a vice president of our firm, and David J. Crapo, Esq., a partner with Crapo Deeds PLLC, delivered a presentation to the 48th Annual Taxation Conference: Appraisal for Ad Valorem Taxation of Communications, Energy, and Transportation Properties. The conference was held in Wichita, Kansas, on July 29–August 2, 2018. The title of John and David's presentation is "Valuation and Extraction of Intangible Assets from a Legal and Valuation Perspective."

John and David review the identification and extraction of intangible asset value in the application of the unit principle valuation analysis. They focus on the legal and valuation definitions of intangible assets, legal precedent and areas of continuing controversy involving the extraction of intangible assets from unit valuations, and the generally accepted valuation methods used to identify and extract intangible asset value.

Robert Reilly, a managing director of our firm, and Casey Karlsen, an associate in our Portland office, authored an article that was published in the June 2018 issue of *les Nouvelles*. The title of John and Casey's article is "Intellectual Property Valuations for License and Other Transfer Purposes, Part 1."

Robert and Casey focus on what analysts need to know about intellectual property (IP) valuation for licensing, transfer, financing, or taxation purposes. After a brief summary of the types of IP and generally accepted methods for valuing IP, they focus particularly on the market approach to IP valuation and, specifically, on the relief from royalty method.

Robert Reilly authored an article that was published in the Summer 2018 issue of the *American Journal of Family Law*. The title of Robert's article is "Valuation of Intangible Assets in Family Law Cases: Part 1 of III."

Robert's three-part article discusses the valuation of intangible assets for family law purposes. Under certain circumstances, intangible assets are valued and recorded for US GAAP compliance purposes. In Part I, Robert summarizes the generally accepted procedures used to value identifiable intangible assets for GAAP financial reporting purposes. He goes on to explore how those procedures may inform marital parties, family law counsel, and valuation analysts who have to recognize and value intangible assets as part of a family law matter.

These presentations and article, along with many others, may be found on our website at www.willamette.com.

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Communiqué

In Print

Robert Reilly, firm managing director, authored an article that appeared in the August 2018 issue of *Practical Tax Strategies*. The title of Robert's article was "The Asset-Based Business Valuation Approach: Advanced Applications (Part 2)." The previous part of that article appeared in the July 2018 issue of *Practical Tax Strategies*. The title of that article was "The Asset-Based Business Valuation Approach: Advanced Applications (Part 1)."

Robert Reilly also authored an article that appeared in the Summer 2018 issue of *American Journal of Family Law*. The title of Robert's article was "Valuation of Intangible Assets in Family Law Cases: Part I of III."

Robert Reilly and Casey Karlsen, Portland office associate, authored an article that appeared in the June 2018 issue of *les Nouvelles*. The title of their article was "Intellectual Property Valuations for License and Other Transfer Purposes Part 1."

Kyle Wishing, Atlanta office manager, and Nick Henriquez, Atlanta office associate, authored an article that appeared in the June/July 2018 issue of *Financial Valuation and Litigation Expert*. The title of their article was "Overview of the But-For Investment Portfolio to Measure Trustee Breach of Fiduciary Duty Damages."

Robert Reilly also authored a series of articles that were published in *Construction Accounting and Taxation*. Robert authored "Applications of the Asset-Based Approach to Construction Company Business Valuation" that appeared in the May/June 2018 issue. And, Robert authored "Applications of the Asset-Based Approach to Construction Company Business Valuation: Part II" that appeared in the July/August 2018 issue.

In Person

John Ramirez, Portland office vice president, recently delivered a presentation to the 48th Annual Appraisal for Ad Valorem Taxation Conference at Wichita State University. The topic of John's presentation was "Valuation and Extraction of Intangible Property from the Taxpayer Company Taxable Unit."

Robert Reilly also presented at the Wichita State University Appraisal for Ad Valorem Taxation Conference. The title of Robert's presentation was "15 Differences between a Business Valuation, a Unit Principle Valuation, and a Summation Principle Valuation."

Robert Reilly was also pleased to serve as a member of the conference planning committee for the 48th Annual Appraisal for Ad Valorem Taxation Conference.

Encomium

Robert Reilly was recently presented with the "Outstanding Member Award" from the National Association of Certified Valuators and Analysts ("NACVA").

Robert has developed and presented numerous continuing education courses and programs for NACVA over the years. In addition, Robert has frequently contributed to all of the NACVA professional publications, including *NACVA QuickRead*, *The Value Examiner*, and *National Litigation Consultants Review*.

Charles Wilhoite, Portland office managing director, was elected to the board of directors of NW Natural. NW Natural provides natural gas service to customers in Oregon and southwest Washington and is the largest independent natural gas utility in the Pacific Northwest.

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Thought Leadership in Intangible Asset Valuation, Damages, and Transfer Price Analyses

❑ Summer 2017

Thought Leadership in Property Taxation Planning, Compliance, and Controversy

❑ Summer 2016

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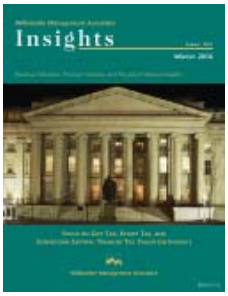

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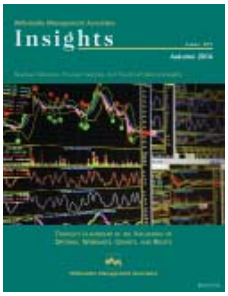

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