#### Thought Leadership Discussion

## The Valuation and Reporting of Contingent Consideration in Business Combinations

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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.<sup>1</sup>

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:

- 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



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 sheetincluding 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.

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

#### **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,<sup>1</sup> 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



Structure	Payoff	Description and Risk Characteristics
Constant (debt-like)	Metric	<ul> <li>A fixed (deferred) payment</li> <li>The cash flow is only subject to counterparty credit risk</li> </ul>
Milestone (binary) Payment	Hoved	<ul> <li>A fixed payment contingent upon achieving a future milestone or performance threshold</li> <li>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</li> </ul>
Linear	Hoked	<ul> <li>Payment is equal to a fixed percentage of the outcome for the underlying metric</li> <li>Linear payoff, where the risk of the earnout cash flow is the same as the risk of the underlying metric, plus counterparty credit risk</li> </ul>
Percentage of Total above a Threshold (asset-or-nothing call)	Hoyed	<ul> <li>Payment is equal to a percentage of the underlying metric, but only if a performance threshold is reached</li> <li>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</li> </ul>
Threshold and Cap (capped call)	Metric	<ul> <li>Payment is equal to a percentage of the excess of the underlying metric above a performance threshold, with a payment cap</li> <li>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</li> </ul>
Excess above a Threshold (call option)	Metric	<ul> <li>Payment is equal to a percentage of the excess of the underlying metric above a performance threshold</li> <li>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</li> </ul>
Clawback (put option)	Metric	<ul> <li>Payment is equal to a percentage of the shortfall of the underlying metric below a performance threshold</li> <li>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</li> </ul>

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."<sup>2</sup>

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 scenariobased 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).<sup>3</sup>

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
- 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

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

tingent payment is estimated at \$660,000.

Exhibit 3			
Example of the 0	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 medicaluse 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:

- "2018 M&A Deal Terms Study," SRS Acquiom, Inc. (May 2018).
- 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)	<u>\$ 0</u>	Balance Sheet
Settlement of Contingent Consideration (stock) Settlement of Contingent Consideration Recorded in Paid-In Capital Gain on Settlement of Contingent Consideration	(4,739,638) (4,692,697)	Cash Flow Cash Flow Income and Cash Flow

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

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#### 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

#### 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

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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:

- 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.

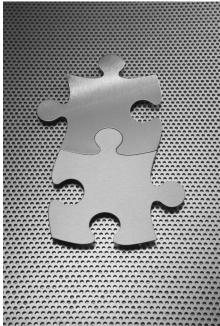
A reasonable person may question the frequency or volume of bargain purchases. After all, businesses along with savvy owners and boards of directors do not often willingly sell assets below fair value. In fact, the FASB and the International Accounting Standards Board consider bargain purchases to be 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).<sup>1</sup>

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.<sup>2</sup>



## 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
- 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:

- 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

- 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
- 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 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

is important in the estimation of fair value for purchase price allocation purposes."

"The analyst's role

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.<sup>3</sup>

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.<sup>4</sup>

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.<sup>5</sup>

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:

- Rule 102E and Section 4C of the Exchange Act
- 2. Failure to Properly Plan the Audit (AU 331 and 332)
- 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	<u>300,000</u>
	\$950,000
Liabilities Assumed	(100,000)
Identifiable Intangible Assets:	
Patents	125,000
Trademarks	<u>75,000</u>
Fair Value of Assets and Liabilities	1,050,000
Goodwill	<u>150,000</u>
Consideration Transferred (purchase price)	<u>\$1,200,000</u>

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	<u>75,000</u>
Fair Value of Assets and Liabilities	1,050,000
Goodwill (bargain purchase element)	(50,000)
Consideration Transferred (purchase price)	<u>\$1,000,000</u>

- 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:

- Juan Ramirez, Handbook of Basel III Capital: Enhancing Capital in Practice (Hoboken, NJ: John Wiley & Sons, 2017): 86.
- SEC Administrative Proceeding File Number 3-18110.
- "Application of the Mandatory Performance Framework for the Certified in Entity and Intangible Valuations Credential" (Corporate and Intangibles Valuation Organization, LLC, 2017), 25.
- 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.
- 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.har
  - vard.edu/2018/02/19/secenforcement-in-financialreporting-and-disclosure-2017-year-end-update/ (January 2018).
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