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Focus on Corporate Transaction Financial Advisory Services

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Willamette Management Associates
Thought Leadership

Insights

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Focus on Corporate Transaction Financial Advisory Services
Editor for This Issue: Robert F. Reilly, CPA

Financial Advisory Services Insights

Corporate Transaction Pricing and Structuring Insights

Emerging Trends Insights

Forensic Analysis Insights

Willamette Management Associates Insights

2014 Recipient of the Apex Literary Award

Forethoughts

For purposes of this *Insights* issue, we broadly define the term "corporate transactions" to include mergers, acquisitions, reorganizations, restructurings, refinancings, divestitures, employee buyouts, management buyouts, leveraged dividend distributions, bankruptcy filings, and bankruptcy reorganizations.

Financial advisers often serve the various corporate transaction parties at four phases in the transaction. First, financial advisers advise participants as part of a due diligence analysis with regard to transaction pricing and structuring issues. Second, financial advisers provide transaction opinions (including fairness opinions and solvency opinions) for corporate governance and regulatory compliance purposes. Third, as the transaction closes, financial advisers assist clients with regard to the financial accounting and the income tax accounting implications related to the transaction. And, fourth, after the transaction is complete, financial advisers serve as forensic experts with regard to any transaction-related dissenting shareholder rights challenges, regulatory reviews, purchase price adjustments, and other post-deal litigation challenges.

This *Insights* issue presents several discussions related to independent financial advisory services with respect to corporate transactions and related employee ownership (ESOP) issues. This *Insights* issue presents several discussions related to corporate transaction pricing, structuring, and due diligence analyses. This *Insights* issue presents several discussions with respect to corporate transaction forensic analysis issues. And, finally, this *Insights* issue presents several discussions with regard to emerging corporate transaction issues.

Willamette Management Associates routinely provides corporate transaction financial advisory services to industrial and commercial clients ranging from substantial family-owned companies to Fortune 100 multinational corporations. In addition, we support our financial advisory opinions throughout the regulatory review and litigation challenge process. While other financial advisers avoid contrarian reviews, Willamette Management Associates financial advisers are experienced forensic analysts who routinely support our transaction analyses and opinions with expert witness testimony.

About the Editor

Robert F. Reilly, CPA

For the past 24 years, Robert Reilly has been one of two firm managing directors (along with Bob Schweihs) of Willamette Management Associates.

Robert performs financial advisory services, forensic analysis services, and valuation consulting services for clients in a wide variety of industries and professions. Robert's financial advisory services include corporate transactions involving going-concern businesses, debt and equity securities, and intangible assets and intellectual properties.

In the last few years, Robert has performed numerous transaction-related and litigation-related financial advisory engagements. Illustrative examples of such engagements include the following:

1. Preparing a fairness opinion related to a sale of a public corporation operating business unit to the family of a corporate director
2. Preparing a fairness opinion on the corporate acquiror tender offer to purchase the outstanding shares of a public registrant
3. Issuing a fairness opinion on the purchase of a minority joint venture interest by the foreign corporation controlling joint venture partner
4. Issuing a solvency opinion with regard to a leveraged dividend distribution made by a public corporation
5. Preparing a fairness opinion on the redemption of an employee stock option plan by a public corporation
6. Performing a solvency analysis and opinion for a public corporation operating near the zone of insolvency
7. Performing several fairness opinions with regard to the Section 363 business unit spin-off sales of a debtor in possession (DIP) operating within bankruptcy protection
8. Preparing several solvency analyses with regard to pre-filing transactions involving a DIP operating within bankruptcy protections.

Robert is a certified public accountant, certified in financial forensics and accredited in business valuation. He is also a chartered financial analyst, a certified valuation analyst, and a certified business appraiser.

Thought Leadership

Guide to Transaction Opinions Provided by Independent Financial Advisers

Kyle J. Wishing

Transaction opinions from independent financial advisers are commonly relied on in today's litigation-prone transaction environment. Such opinions are relied on by the directors of transaction participant companies and by other parties with fiduciary responsibilities. This discussion provides an overview of two common types of transaction opinions provided by independent financial advisers: fairness opinions and solvency opinions. This discussion summarizes the purposes of these transaction opinions, the circumstances when such transaction opinions are appropriate, and the analyses performed by the independent financial adviser in the preparation of such a transaction opinion.

Introduction

Corporate transactions are often high risk events that involve a number of parties to complete. For purposes of this discussion, corporate transactions include mergers, acquisitions, divestitures, financings, restructurings, reorganizations, and leveraged dividend distributions.

The parties executing the corporate transaction (including controlling shareholders, boards of directors, company management, and lenders) and the transaction advisers (especially investment bankers) often have conflicts of interest when approaching a proposed transaction. Transaction opinions provided by independent financial advisers may assist the deal process by providing an unbiased analysis of the proposed transaction. Such an analysis, prepared from a financial perspective only, may provide the decision makers and the corporate fiduciaries with the support needed for any business judgments related to the proposed transactions.

Transaction opinions provided by independent financial advisers often take the form of fairness opinions and solvency opinions. This discussion summarizes the purposes of fairness opinions and solvency opinions, the situations when fairness opinions and solvency opinions are appropriate, and the general analyses performed by the independent financial adviser in the preparation of a fairness opinion or a solvency opinion.

Fairness Opinions

Overview

A fairness opinion expresses the financial adviser's opinion as to whether a proposed transaction is fair from a financial point of view. Fairness opinions are generally provided to assist individual directors, board committees, trustees, or other parties who have fiduciary duties in the transaction decision-making process.

The role of the fiduciary is to serve as an agent of the beneficiary. In a corporate transaction setting, the fiduciary may be the board of directors, a special committee of the board of directors, an individual director, or a trustee. The extent of the fiduciary duties are based on the legal guidance provided by statutory authority, judicial precedent, or administrative regulations and regulators.

Such fiduciary duties may vary based on the relevant legal jurisdiction. However, it is generally understood that the fiduciary's duty is to uphold the business judgment rule.

In the corporate transaction analysis, the fiduciary typically is the client of the financial adviser. And, the financial adviser typically performs the fairness opinion for the benefit of the fiduciary. The financial adviser does not have a fiduciary duty to the parties to whom the fiduciary has a duty.

"The issue of relative fairness comes into play when certain transaction parties will receive special consideration. . . ."

Obtaining a fairness opinion is one way that the fiduciary party is able to demonstrate that he or she has upheld the business judgment rule standard with regard to the proposed corporate transaction.

What Does "Fairness" Imply?

The phrase "fair from a financial point of view" is somewhat ambiguous. There is no statutory guidance, judicial precedent, or administrative ruling that provides a specific definition of the phrase "fair from a financial point of view." However, financial advisers typically have a practical understanding of what the phrase means.

The concept of fairness covers both legal and financial issues. It follows that the qualifier "from a financial point of view" limits the fairness opinion to the financial aspects of a proposed transaction.

The legal aspects of the proposed transaction should be addressed in a legal opinion that is separate from the fairness opinion.

In determining fairness, the financial adviser may consider both aggregate fairness and relative fairness.

Aggregate fairness is concluded based on the amount of the entire compensation to be received in the transaction. For example, the financial adviser may compare the price per share to be received in a merger or acquisition transaction to the concluded range of value per share estimated by the financial adviser.

The issue of relative fairness comes into play when certain transaction parties will receive special consideration (e.g., an ownership interest in the surviving company, payment for an agreement not to compete with the surviving company, or a lucrative employment contract).

In determining relative fairness, the financial adviser may consider:

1. the relative investment risk accepted by each party in a transaction and
2. the expected investment return associated with that risk.

It is noteworthy that the allocation of equity, debt, and other securities to the various parties in a corporate transaction may affect the investment internal rate of return (IRR) earned by each of the transaction participant categories.

What Is the Purpose of a Fairness Opinion?

The product of a fairness analysis is an indication as to whether a transaction is fair to shareholders, particularly the beneficiaries that the fiduciary has a duty to (typically noncontrolling or nonvoting shareholders). The fairness opinion and the fairness analysis often provide useful tools with multiple applications for the fiduciary.

First, a fairness opinion is a procedural tool, as it provides a fiduciary with financial information regarding the pending transaction.

Second, a fairness opinion may be a legal tool. Fairness opinions may provide evidence that the fiduciary used reasonable business judgment in evaluating and assessing the pending transaction.

Under the legal concept of business judgment, courts typically do not second guess the decisions of the fiduciary, provided that the fiduciary acted:

1. with an informed basis,
2. in good faith,
3. in a manner that the fiduciary believed to be in the best interest of all beneficiaries, and
4. without fraud or self-dealing.

Third, a fairness opinion is a practical tool. A fairness opinion from an independent financial adviser may provide a level of reassurance for other parties to the transaction. The fairness opinion is not an explicit endorsement of the transaction. However, the fairness opinion may persuade other parties to approve the transaction.

It is important to make a distinction between the fairness opinion and other forms of business valuation or financial consulting arrangements.

A fairness opinion is not:

1. an opinion or any other form of assurance that the highest and best possible price is being obtained or received for a given transaction;
2. an assessment or evaluation of the negotiation process leading to the proposed transaction;
3. an evaluation of the business rationale regarding the proposed transaction;
4. an opinion of the legal fairness of the proposed transaction;
5. a recommendation to the fiduciary on how to vote; or

6. a confirmation of, or any form of opinion or assurance (whether audit, review, or compilation) on, historical or prospective financial statements or any other information provided by or on behalf of the client or obtained publicly.

When Is a Fairness Opinion Appropriate?

There are no federal or state laws mandating that the fiduciary obtain a fairness opinion from an independent financial adviser when considering a transaction. However, courts have indicated that they give weight to the fairness opinion when analyzing whether the fiduciary has fulfilled his or her obligation to beneficiaries.

The fairness opinion may be a consideration in transactions where there is a potential conflict of interest. Fairness opinions may be relevant in a variety of transactions involving both privately held and publicly traded companies. Such transactions may involve a negotiated merger, friendly or hostile tender offer, management buyout, transaction involving an employee stock ownership plan (ESOP), going-private transaction, recapitalization or restructuring transaction, leveraged buyout, and so on.

In a merger or acquisition transaction, the fiduciaries representing each of the buying and the selling stakeholders may benefit from obtaining separate fairness opinions.

Fairness opinions are customary components of transactions involving publicly traded companies due to the liability of fiduciaries (usually the boards of directors) acting on behalf of the noncontrolling stockholders.

Fairness opinions have become increasingly common in private company transactions. They are also becoming common for transactions involving a change in control, an ESOP, or a company with few or no external directors on its board.

A recent study[1] by FTI Capital Advisors of 50 major domestic transactions that involved controlling interest transactions among publicly traded companies indicated that 46 percent of the transactions involved one fairness opinion, 28 percent involved two fairness opinions, and 26 percent involved three or four fairness opinions.

Altogether, according to the FTI Capital Advisors study, 95 fairness opinions were provided for the 50 transactions, and 71 percent of the fairness opinions were provided to sell-side boards of directors.

What Is the Work Product?

The work product of a fairness opinion analysis is typically delivered to the client in the form of a letter. The content of the fairness opinion letter generally contains the following elements:

1. The purpose and objective of the fairness opinion
2. A description of the proposed transaction
3. A list of the documents and agreements that were relied on and any additional due diligence performed by the financial adviser such as a site visit or management interviews
4. Appropriate caveats regarding significant assumptions or conditions
5. A statement on significant limitations on use
6. A statement conclusion as to whether the proposed transaction is fair from a financial point of view

Notably, the standard fairness opinion letter does not include a detailed description of the financial and valuation analysis performed by the independent financial adviser. This information is often presented to the client in a separate oral or written presentation. For publicly traded companies, the valuation analysis and presentation

may be summarized and publicly disclosed with the Securities and Exchange Commission.

The fairness opinion is:

1. specific to a particular party or transaction participant,
2. specific to the terms and structure of the proposed transaction, and
3. valid only as of the specified valuation date (typically, the date issued).

Fairness Opinion Analysis

A fairness opinion analysis is more broad in scope than a typical business valuation. Nonetheless, the business valuation process does play a role in the fairness analysis. Typically, the target company is valued as a going-concern business, using the generally accepted valuation methods of the income approach, market approach, and/or asset-based approach.

The business value for the target company is typically based on a highest and best use analysis. And, the target company value is typically estimated by using income approach valuation methods (usually the discounted cash flow method) and market approach valuation methods (usually the guideline publicly traded company method and the guideline merged and acquired company method).

The financial adviser typically uses a combination of these generally accepted business valuation methods to estimate a range of value for the target company equity. The concluded range of value can then be compared to the proposed transaction consideration to be received by the selling shareholders. The range of value may be specific to a particular interest in the company (i.e., a noncontrolling ownership interest) depending on the interest held by the client and the facts and circumstances of the transaction.

One component in estimating a range of value per share is the specified standard of value. Unfortunately, the phrase "fair from a financial point of view" provides little guidance as to the appropriate standard of value to apply in the fairness analysis.

In most states, the statutory standard of value for dissenting shareholder appraisal rights considerations is "fair value." This fact has led some financial advisers to believe that fair value is the appropriate standard of value to be considered in a fairness opinion. Other financial advisers believe that economic synergies may be considered in determining the target company fair value range.

In the case of a fairness opinion, there is no statutory standard (or definition) of value by which to perform the valuation analysis. Rather, the fairness of the transaction consideration should be evaluated based on the facts and circumstances of the particular proposed transaction.

In addition to a business valuation, the fairness opinion analysis may include an analysis of the terms of the proposed transaction financing.

Fairness opinion analyses for publicly traded companies may include an analysis of historical stock price, trading volume, and volatility. This type of stock price analysis may be helpful for:

1. determining the relative liquidity of the securities and
2. assuming the reasonableness of the proposed transaction acquisition price premium.

For transactions involving multiple classes of equity, relative fairness may be brought in to question. In order to determine relative fairness, the financial adviser may estimate and compare the expected rates of return earned by the selling shareholders with the inherent risk of the consideration received by the selling shareholders.

Solvency Opinions

Overview

A solvency opinion is a tool that may be used to support a leveraged corporate transaction. The very nature of a leveraged corporate transaction raises issues related to the consideration of a fraudulent conveyance. Solvency opinions are often performed either:

1. contemporaneously, as part of a proposed, leveraged transaction or
2. in hindsight, such as in bankruptcy or prebankruptcy cases that have fraudulent conveyance or preference payment implications.

This discussion focuses on solvency opinions that are provided as part of a proposed leveraged transaction.

A solvency opinion is intended to provide positive assurance that a proposed leveraged transaction will not result in undue financial stress to the debtor company and to its creditors.

A leveraged corporate transaction should not be considered a fraudulent conveyance if, after giving

effect to the proposed transaction, it is determined that the:

1. fair value of the debtor company assets exceed its debts (the balance sheet test),
2. the debtor company is expected to meet its debt obligations (the cash flow test), and
3. the debtor company has a reasonable amount of capital going forward (the capital adequacy test).

What Is the Purpose of a Solvency Opinion?

The solvency opinion is a procedural tool that communicates that a particular transaction would not, in the normal course of business, render the debtor company insolvent. By obtaining a solvency opinion, the board of directors (and other parties to the transaction) has taken a step to protect itself against fraudulent conveyance claims relating to the transaction, should the debtor company ultimately become insolvent.

The issue of fraudulent conveyance may be relevant to many parties involved in a corporate transaction. A judicial determination of fraudulent conveyance can result in the following considerations:

1. The unwinding of the subject corporate transaction may be required.
2. A breach of fiduciary duty from directors and controlling shareholders to creditors may be found; directors and controlling shareholders may be held personally liable.
3. Selling shareholders risk the return of proceeds from the transaction.
4. Secured creditors risk the revocation of their liens and the subordination of their claims to other creditors.
5. Professional advisers may be required to return fees related to the corporate transaction.

The solvency opinion analysis examines three conditions to determine whether the proposed corporate transaction will result in the debtor company solvency. The three conditions provide the basis for a claim that a fraudulent transfer occurred at the time of the proposed transaction. These three conditions are defined in the U.S. Bankruptcy Code (Section 548), the Uniform Fraudulent Transfer Act, and the Uniform Fraudulent Conveyance Act.

A solvency opinion addresses the three conditions of a fraudulent transfer through the balance sheet test, the capital adequacy test, and the cash flow test as follows:

1. The balance sheet test seeks to answer the question: does the recorded amount of the debtor company liabilities (specifically including the proposed financing) exceed the fair value of the debtor company assets?
2. The capital adequacy test seeks to answer the question: does the debtor company have an unreasonably small amount of capital to run its business operations (after the proposed transaction)?
3. The cash flow test seeks to answer the question: does the debtor company have adequate cash flow to service all of its liabilities (specifically including the proposed financing) as those liabilities come due?

The solvency opinion and underlying solvency analyses may be an important tool for deal participants that have to consider transactional risk. The solvency opinion and analysis may be helpful to such parties for the following reasons:

1. The results of the solvency analysis may assist stakeholders in assessing the risk of whether the transaction may be characterized as a fraudulent conveyance in the event of a bankruptcy or other proceeding.
2. The existence of a solvency analysis and the documentation of associated stakeholder reliance may reduce the scope and risk of fraudulent conveyance litigation.
3. The existence of a solvency opinion provides evidence that the stakeholders took the necessary effort to avoid perpetrating the alleged fraud.
4. The existence of a solvency opinion demonstrates that the fiduciary exercised due care when deciding to enter the proposed transaction.

When Is a Solvency Opinion Appropriate?

Solvency opinions may be appropriate for any leveraged corporate transaction. Solvency opinions are provided for leveraged dividend recapitalizations, stock buybacks, asset sales or transfers, debt refinancings, intercompany restructurings, divestiture spin-offs and split-offs, leveraged buyouts, leveraged payment of an expense/liability/large capital expenditure, and so forth.

The issue of fraudulent conveyance is impartial as to whether the debtor company is a closely held company or a publicly traded corporation. That is, solvency opinions are appropriate for both publicly

traded and privately held companies that are entering a highly leveraged corporate transaction.

Who Is the Client?

Independent financial advisers may provide solvency opinions to the debtor company board of directors, private equity sponsors, chief executive or chief financial officers (to support officer solvency certificates), and/or secured lenders.

In the case of merger and acquisition transactions, both the buy-side and the sell-side boards of directors may seek a solvency opinion.

Solvency Analysis

As stated previously, the three financial tests for identifying a fraudulent conveyance are:

1. the balance sheet test,
2. the cash flow test, and
3. the capital adequacy test.

Each of the fraudulent conveyance tests results in a "pass" or "fail" indication. In order for the corporate transaction to not be considered a fraudulent transfer, all three tests should be "passed."

Balance Sheet Test

The balance sheet test is applied to determine whether, after considering the effects of the proposed transaction, the total fair value of the debtor company assets is greater than the total amount of its liabilities. The balance sheet test measures solvency as of the transaction date.

The first procedure in the balance sheet test is for the financial adviser to consider the highest and best use of the debtor company assets. The highest and best use analysis indicates the appropriate premise of value for the valuation aspects of the solvency analysis. A common premise of value is value in continued use, as part of a going concern business enterprise.

Second, the financial adviser estimates the fair value of the debtor company assets. The fair value of all tangible and intangible assets should be measured. Typically, the financial adviser will conduct a valuation analysis of the debtor company to estimate the fair value of the debtor company operating assets. The financial adviser may consider the income approach, the market approach, and the cost approach in the valuation of the debtor company assets.

Third, the financial adviser determines the amount of the debtor company liabilities, including all current, long-term, and contingent liabilities. The proposed transaction financing is included in the estimate of liabilities.

Fourth, the financial adviser subtracts the amount of the company total liabilities from the fair value of the company total assets.

The balance sheet test is "passed" if the fair value of the debtor company assets is greater than the amount of the debtor company total liabilities.

Cash Flow Test

The cash flow test analyzes the debtor company's ability to meet its debt obligations as these obligations come due.

The first procedure in the cash flow test is to project the debtor company expected cash flow over the repayment period for the proposed financing. The cash flow projection includes both principal and interest payments on the proposed financing and any other transaction-related expenditures.

The next procedure in the cash flow test is to estimate the cash flow available to meet the debt service obligations. This procedure typically involves an analysis of:

1. projected cash flow from operations throughout the projected period,
2. any excess cash available on the transaction date, and
3. the availability of any unused credit commitments.

The financial adviser should be aware of the covenants of the proposed financing and should compare the specified coverage ratios in the financing agreement to the projected debtor company covenants.

The cash flow test is "passed" if the debtor company can (1) pay its projected debt obligations from any of the three aforementioned sources of cash and (2) remain in compliance with all of its debt covenants.

As part of the cash flow test, the financial adviser typically performs a sensitivity analysis to "stress test" the cash flow projection. The sensitivity analysis is performed by altering various cash flow projection variables (i.e., projected revenue and profit margin) to determine whether the debtor company can meet its debt obligations under a variety of alternative operating conditions.

The Capital Adequacy Test

The capital adequacy test measures whether the debtor company is engaged in a business or a

transaction for which it has an adequate amount of capital. The capital adequacy test determines whether the debtor company has adequate capital to meet its:

1. operating expenses,
2. capital expenditure requirements, and
3. debt repayment obligations.

The goal of the capital adequacy test is to evaluate the likelihood that the debtor company will survive potential business fluctuations over several quarters following the transaction date.

The capital adequacy test involves an analysis of short-term sources and uses of funds, typically for the four fiscal quarters after the transaction date. The financial adviser typically considers various operating scenarios, in addition to debtor company management's projected operating performance.

The capital adequacy test is "passed" if the debtor company is expected to have sufficient cash on hand to pay its (1) operating expenses, (2) capital expenditure requirements, and (3) debt repayment obligations.

How Are Transaction Opinions Priced?

The professional fee structure for transaction opinions is primarily related to the level of risk associated with the opinion. Transaction opinions that are issued to multiple parties and relied on by multiple parties will have greater risk and higher fees than transaction opinions that are issued and relied on by one party.

Furthermore, the level of risk associated with a transaction opinion increases based on the transaction opinion's level of disclosure. An opinion that is issued publicly will have greater risk and higher fees than an opinion that is not publicly disclosed.

Transaction Opinion Provider Independence

Transaction opinions may serve as tools for fiduciaries in the process of assessing pending transactions. While transaction opinions may be provided by parties to the deal (i.e., investment bankers or company management), courts have consistently favored transaction opinions provided by independent financial advisers.

In a recent survey[2] conducted by FTI Capital Advisors, 76.5 percent of respondents indicated that fairness opinions provided by independent financial advisers were "very effective" at defending the decisions of boards of directors, whereas only 9.8 percent of respondents found fairness opinions provided by an investment bank involved in the transaction to be "very effective."

". . . the level of risk associated with a transaction opinion increases based on the transaction opinion's level of disclosure."

Despite these survey results, a data sample of recent transactions suggests that only 9 percent of boards used fairness opinions from independent financial advisers.[3]

Summary

In today's litigation-prone transaction environment, a transaction opinion provided by an independent financial adviser may be an effective procedure to defend a fiduciary's decision making regarding a proposed corporate transaction.

Some of the criteria for selecting a financial adviser to perform a transaction opinion include that the financial adviser (1) is independent; (2) has experience in performing valuation analyses, specifically with respect to providing transactional opinions; and (3) has experience performing analyses in the subject industry.

Because the ultimate audience for transaction opinions may be a court of law, it may be helpful that the financial adviser has the appropriate experience and expertise to convince a judicial finder of fact that he or she is professionally qualified to perform the transactional analysis.

Notes:

1. "FTICA Fairness Opinion Landscape," FTI Capital Advisors (February 2014).
2. "State of Transaction Opinions—Optimizing Opinion Defensibility," FTI Capital Advisors (September 2014).
3. "FTICA Fairness Opinion Landscape," FTI Capital Advisors (February 2014).

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Goodwill Valuation Approaches, Methods, and Procedures

Robert F. Reilly, CPA

Financial advisers are often asked to value goodwill within a corporate transaction environment. These goodwill valuations may be performed in the due diligence phase of the corporate transaction for transaction pricing and structuring purposes. These goodwill valuations may be performed in the consummation phase of the corporate transaction—as part of the preparation of a transaction fairness opinion or solvency opinion. And, these goodwill valuations may be performed within the controversy phase of the corporate transaction—to defend against dissenting shareholder appraisal rights claims or claims that the transaction resulted in a fraudulent transfer. For some transaction-related purposes, financial advisers may value goodwill as a residual amount (i.e., the residual of a total business or professional practice value minus the value of all identifiable tangible assets and intangible assets). For other transaction-related purposes, financial advisers may value goodwill as an individual, income-producing intangible asset. This discussion summarizes the generally accepted goodwill valuation approaches, methods, and procedures. And, this discussion presents an illustrative example of a goodwill valuation analysis.

Introduction

There are different types of goodwill, including (1) business or institutional goodwill and (2) personal or professional goodwill. Financial advisers are often asked to value these different types of goodwill for transaction, taxation, financial accounting, litigation, and other purposes. This discussion describes the various components of goodwill and the various reasons why independent financial advisers may be asked to value goodwill.

Financial advisers are often asked to value goodwill within a corporate transaction environment. These goodwill valuations may be performed in the due diligence phase of the corporate transaction for transaction pricing and structuring purposes. These goodwill valuations may be performed in the consummation phase of the corporate transaction—as part of the preparation of a transaction fairness opinion or solvency opinion. And, these goodwill valuations may be performed within the controversy phase of the corporate transaction—to defend against dissenting shareholder appraisal rights claims or claims that the corporate transaction involved a fraudulent transfer

This discussion summarizes the generally accepted approaches and methods related to the valuation of goodwill. This discussion focuses on business enterprise (or institutional) goodwill. However, this discussion also considers personal (or individual) goodwill.

This discussion starts with a definition of goodwill. Since there is no single definition of goodwill that is applicable to all purposes, this discussion considers alternative definitions. This discussion describes the types and attributes of goodwill. And, this discussion considers the many reasons why financial advisers are asked to value goodwill.

Finally, this discussion mentions many of the common internal and external data sources related to the goodwill valuation. These data sources primarily include sources of transactional data regarding the sale of goodwill within the context of a business acquisition.

Some financial advisers believe that only income approach methods are applicable to value goodwill. However, this discussion describes cost approach, market approach, and income approach valuation methods. This discussion concludes with an illustrative goodwill valuation example.

Goodwill Components

There are many interpretations of goodwill. These interpretations are generally grouped into two categories: residual interpretations and income interpretations. While income interpretations may be more common, financial advisers should be familiar with both categories of interpretations. Both interpretations agree on the components of (or the factors that create) goodwill and the types of goodwill (or situations in which goodwill arises).

There are three principal components of goodwill. Financial advisers consider these three components as either (1) the factors that create goodwill or (2) the reasons why goodwill exists in certain circumstances. The first and third components primarily relate to business goodwill. And, the second component relates to both business goodwill and personal goodwill.

The first goodwill component is the existence of operating business assets that are in place and ready to use. This component is sometimes referred to as the going-concern element of goodwill. The fact that all of the elements of a business enterprise are physically and functionally assembled creates intangible value. These business enterprise elements include capital (e.g., equipment), labor (e.g., employees), and coordination (e.g., management).

Some financial advisers identify and measure this going-concern value as a separate intangible asset of a business. This separate identification may be appropriate for certain taxation or forensic analysis purposes.

Other financial advisers measure going-concern value as one component of the entity's business goodwill. This aggregate identification is appropriate for purposes of Financial Accounting Standards Board (FASB) Accounting Standards Codification (ASC) Topic 805, Business Combinations, fair value accounting for business combinations.

Either identification procedure may be appropriate depending on the purpose and objective of the goodwill analysis.

This going-concern value may enhance the value of the business entity's individual operating assets. For example, a business entity's equipment value is typically greater when the equipment is appraised based on a value in continued use (or going-concern) premise of value—rather than on a value in exchange (or piecemeal disposition) premise of value.

Some going-concern value may attach to the business entity's specifically identified identifiable intangible assets. For example, an entity's patent, copyright, or trademark value is typically greater when that intangible asset is appraised on a value in continued use (or going-concern) premise of value rather than on a value in exchange (or piecemeal disposition) premise of value.

The second goodwill component is the existence of excess income (however measured). This component is described later in this discussion. For a business entity, excess income is income generated by the entity that is greater than the amount needed to provide a fair rate of return on all of the entity's tangible assets and identifiable intangible assets.

This excess income component relates to the concept of goodwill as that portion of business enterprise value that cannot be specifically assigned to the entity's tangible assets or identifiable intangible assets. For an individual (e.g., professional practitioner, athlete, celebrity), excess income is the income generated by the individual that is greater than the amount that would be expected to be accrued by a comparably skilled individual working in comparable circumstances.

The third goodwill component is the expectation of future events that are not directly related to the entity's current operations. Goodwill may be created by the expectations of future capital expenditures, future mergers and acquisitions, future to-be-developed products or services, and future customers or clients. This future expectations component relates to the concept of goodwill as the current value of future assets (both tangible and intangible) that do not yet exist on the analysis date.

Investors assign a goodwill value to a business entity if they expect that the net present value of the income associated with future events is positive. The positive net present value of the expected future income associated with assets that are already in existence (for example, capital assets, product lines, and customers) is appropriately assigned to those respective tangible assets and intangible assets.

The Residual Interpretation of Goodwill

Under generally accepted accounting principles, the goodwill that an entity develops in the normal course of business is rarely recorded on the entity's financial statements. And, the accounting recognition for

internally created goodwill is different than the accounting recognition for purchased goodwill.

Internally created goodwill is rarely recorded on the entity's balance sheet. In contrast, purchased goodwill is recorded on the acquiror's balance sheet as soon as the purchase transaction is completed. Under FASB ASC topic 805 acquisition accounting, the fair value (calculated as a residual from total purchase consideration) of purchased goodwill is recorded as an intangible asset on the acquiror's balance sheet.

Accountants often use a fairly broad definition of goodwill. This broad interpretation of goodwill is the residual value that is calculated by subtracting the fair value of all the acquired tangible and identifiable intangible assets from the acquired entity's total purchase price.

Sometimes this goodwill definition collectively quantifies all of the intangible value of the acquired company. This is the case when all of the identifiable intangible assets are not adequately identified and valued.

This collective goodwill valuation may occur when the fair values of the individual identifiable intangible assets are immaterial compared to the total business purchase price. In this circumstance, this residual definition of goodwill may capture the total intangible value of the acquired business entity, with little consideration of the identifiable intangible assets.

The Income Interpretation of Goodwill

The income interpretation of goodwill may be more conceptually robust than the residual interpretation of goodwill. As a result, the income interpretation of goodwill may be more useful to the financial adviser who is interested in the valuation of the entity's discrete goodwill—as opposed to the valuation of the entity's total intangible value.

First, the financial adviser typically quantifies all of the income of the entity. For purposes of this excess income analysis, income can be measured many different ways. The only requirement is that the measure of income is calculated on a basis consistent with the measure of the fair rate of return on the entity's operating assets.

Second, the financial adviser typically allocates (or assigns) some portion of this total income to each tangible and intangible asset category that contribute to the income production. These asset categories typically include working capital, tangible personal property, real estate, and identifiable intangible assets. This allocation of the entity's income is typically based on a fair rate of return on the asset category multiplied by the value of the asset category.

Third, the financial adviser typically quantifies the portion of the entity's income that cannot be associated with any other tangible or intangible asset. That residual income is often called excess income (or excess earnings). This excess income is then assigned to goodwill.

Fourth, goodwill value is typically quantified as this amount of excess income capitalized as an annuity in perpetuity. The excess income is capitalized by a risk-adjusted and growth-adjusted direct capitalization rate. The result of this direct capitalization procedure indicates the goodwill value.

Goodwill Types

There are three general goodwill types. These three goodwill types may affect the identification and ownership of the goodwill. But, the distinction of these three types of goodwill should not affect the valuation results.

The first goodwill type is institutional goodwill. This is the goodwill that relates to an industrial or commercial business enterprise. This goodwill type typically results from the collective operations of—and the collective assemblage of—the entity's assets. Institutional goodwill is typically owned by the industrial or commercial business.

However, in the case of a professional services business (for example, a manufacturers representative company or other professional sales organization), some or all of the institutional goodwill can be created by the individual employee/owners.

The second goodwill type is professional practice goodwill. This type of goodwill relates to a medical, dental, legal, accounting, engineering, or other type of professional practice. This goodwill type is distinguished from the other goodwill types because it has two distinct components: the practitioner (or personal) component and the business (or practice) component.

The practitioner component relates to the goodwill created by the reputation and skills of the individual professional practitioners (the actual physicians, dentists, lawyers, CPAs, engineers, and other professionals). The business component relates to the goodwill created by the location, reputation, longevity, assembled assets, and operating procedures of the institutional professional practice.

One issue that often arises with regard to this goodwill type is who owns each of the two components. This ownership question can be controversial

in marital dissolutions, shareholder disputes, or in other types of litigation.

Ultimately, the ownership of the goodwill components is a legal question with a legal answer. However, the financial adviser may be tasked with the identification and the valuation of these two components of professional practice goodwill.

The third goodwill type is celebrity goodwill. This is the goodwill associated with being a famous individual. Typically, there are three categories of celebrities who enjoy such goodwill: sports celebrities, entertainment celebrities, and achievement celebrities.

These various categories of celebrity goodwill are distinguished by the factors that created the goodwill. For example, the sports celebrity goodwill is created by the individual's physical prowess. That prowess (and the associated goodwill) may wane with the age of the athlete.

Entertainment goodwill relates to singers, musicians, actors, television talk show hosts, and so on. This type of goodwill also relates to the individual's skill and ability. But for many entertainers, professional skill and ability may increase (and not decrease) with age.

The category of achievement celebrities includes prominent corporate executives, politicians, clergy, or organizational leaders. The goodwill of an achievement celebrity often relates to the career or other professional accomplishments of that individual. Unlike the other types of goodwill, it may be difficult to transfer celebrity goodwill.

It is often important for the financial adviser to separately identify and individually value the three types of goodwill. There may be different legal, economic, and taxation consequences for each goodwill type.

The following factors affect which type of goodwill exists:

1. The type of services or products offered by the business entity
2. The individual's personal relationships with customers or clients
3. The individual's direct impact on the management and direction of the business entity

Most goodwill is likely to be personal goodwill (that is, goodwill owned by the business owner/operator, individual practitioner, or celebrity) if:

1. the individual makes essentially all significant management decisions regarding the business entity,
2. the operations of the company or practice are not functionally or economically separate from the individual, and
3. the success of the business entity is directly related to the activities of the individual.

In the early stages of an entity's operations, most internally created goodwill is typically personal goodwill. As the entity matures (as it increases in size and complexity), goodwill usually shifts from the personal category to the institutional category.

Reasons to Value Goodwill

There are many reasons why a financial adviser may be asked to value goodwill. Some of these reasons follow:

- Economic damage analyses. When a business has suffered a breach of contract or a tort (such as an infringement, breach of a fiduciary duty, or interference with business opportunity), one measure of the damages suffered is the reduction in the value of the entity's goodwill due to the wrongful action.

  This analysis may encompass the comparative valuation of the entity's goodwill before and after the breach of contract or tort. This before and after method is also useful for quantifying the economic effects of a prolonged labor strike, a natural disaster, or a similar phenomenon.
- Business or professional practice merger. When two businesses merge, the equity of the merged entity typically is to be allocated to the merger partners. One common way to allocate equity in the merged entity is in proportion to the relative value of the assets contributed, including the contributed goodwill.
- Business or professional practice separation. When a business separates, the assets of the consolidated business typically have to be allocated to the individual business owners.

  One common way to allocate the assets to the separating business partners is in proportion to the relative value of the assets controlled by or developed by each partner, including the goodwill of each business partner.
- Solvency test. The solvency of a business entity is an issue with regard to lender's fraudulent conveyance concerns during a

financing transaction or a financial restructuring.

One of the individual tests to determine if a business entity is solvent is: Does the fair value of the entity's assets exceed the value of the entity's liabilities (after consideration of the financing transaction)? One of the entity's assets that is considered in a solvency analysis is goodwill.

- Insolvency test. The degree of insolvency of a business entity may have federal income tax consequences if debt is forgiven (in whole or in part) during a refinancing transaction or financial restructuring. One of the specific tests to determine if a business entity is insolvent for federal income tax purposes is: Is the fair market value of the entity's assets less than the value of the entity's liabilities (before the debt forgiveness)?

  The cancellation of debt income is not recognized as taxable income to the extent that the taxpayer debtor is insolvent. The federal income tax regulations specifically indicate that one of the assets that should be considered in an insolvency analysis is goodwill.

- Intercompany transfer price. When intangible assets are transferred between related entities (for example, between a parent corporation and a less than wholly owned subsidiary), an arm's-length price should be estimated for the intercompany transfer of the assets.

  Such an intercompany transfer may affect the profitability and return on investment of, say, two subsidiaries—one that is wholly owned and one that has a 10 percent minority interest owner.

  While the intercompany transfer of goodwill is not subject to Internal Revenue Code Section 482 considerations, intercompany goodwill transfers may also have other income tax ramifications. Such intercompany transfers may have state income tax consequences if the various related entities are located in different state tax jurisdictions.

- Bankruptcy and reorganization. Parties in interest to a bankruptcy estate often have to decide if the debtor corporation is worth more as a going-concern business (pursuant to a plan of reorganization) or as a mass disposition of assets (pursuant to a plan of liquidation). A valuation of the debtor's goodwill (if any) may be useful in assessing whether the business is worth reorganizing.

  A valuation of the debtor's goodwill (for example, before and after the plan of reorganization) may be useful in assessing the reasonableness of the proposed plan of reorganization. Such an assessment may be of interest to the debtor in possession, the secured and unsecured creditors, the bankruptcy court, and other interested parties.

- Conversion of a C corporation to an S corporation. One factor in the analysis of the costs and benefits of converting an entity's federal income tax status from a C corporation to an S corporation is the quantification of any built-in gains (BIG) tax associated with the value of the corporation's assets.

  The federal income tax regulations related to the BIG tax are clear that the corporation's goodwill is one asset that should be considered in the valuation.

- Business enterprise valuation. The identification and quantification of goodwill is one procedure of the asset-based approach to business valuation. An asset-based approach is often used in the valuation of an industrial or commercial company or professional service business.

  Such business valuations are routinely performed for taxation, ownership transition, financing, bankruptcy, corporate governance, litigation, and other purposes.

- Deprivation analysis. The goodwill valuation may be one component in the damages analysis associated with a business that is subject to a condemnation, expropriation, or eminent domain action. Financial advisers sometimes only consider the value of the entity's real estate and tangible personal property subject to the condemnation or other "taking."

  However, even if the entity is relocated to a new location as part of the eminent domain action, the business may have suffered a loss of all or part of its goodwill. The loss of institutional or practice goodwill value may be a claim in the condemnation or eminent domain action.

- Ownership allocation litigation. Several forms of litigation involve the allocation of direct or indirect ownership interests in a business entity. Two examples of such litigation include the following:

1. Marital dissolution cases (which involve the allocation of the business entity ownership interest within the marital estate).
2. Dissenting shareholder rights and shareholder oppression cases (which involve the allocation of the business entity ownership interests to the dissenting or oppressed stockholders).

This second category of litigation involves both dissenting shareholder appraisal rights claims and shareholder oppression claims. In such litigation claims, the valuation of the entity's goodwill is often an important issue.

- Ad valorem property tax. In some taxing jurisdictions, state and local ad valorem property tax only applies to real estate and tangible personal property. The existence of economic obsolescence (a form of external obsolescence) may have a direct effect on the value of the taxpayer's real estate and tangible personal property. Accordingly, an assessment of the existence of economic obsolescence may be an important procedure in the valuation of such industrial or commercial operating property.

  There are several methods for quantifying economic obsolescence, and most methods incorporate some analysis of the entity's goodwill.

  Typically, if the entity enjoys positive goodwill value, then the tangible assets may not experience economic obsolescence. If the entity experiences negative goodwill, then the values of the industrial and commercial operating assets are likely to be affected by economic obsolescence.

How the Different Goodwill Types Are Valued

All generally accepted intangible asset valuation approaches are appropriate to value the different goodwill types.

Typically, goodwill (whether personal or institutional) is not sold or otherwise transferred separately in the marketplace. Therefore, the market approach is less commonly used to value goodwill. When the market approach is used to value goodwill (for example, the goodwill of medical, dental, or other professional practices), the empirical market data are often based on purchase price allocations of the acquired entities.

Because goodwill (whether personal or institutional) is often measured based on future earnings, the cost approach is less commonly used to value goodwill. In practice, for both personal and institutional goodwill, the income approach is more commonly used.

Financial advisers may also use some version of a residual analysis in the valuation of personal or institutional goodwill. In such a valuation, the financial adviser estimates the total amount of goodwill associated with the business entity (however defined). Using this residual analysis, goodwill is measured indirectly using business valuation approaches.

Using a residual analysis, goodwill represents the residual of the overall business value less the total value of all tangible assets and identifiable intangible assets used in the business enterprise.

The financial adviser may also use some version of the with and without method (also called the comparative business value method) in the valuation of personal or institutional goodwill. To use the with and without method, the financial adviser estimates the value of the business entity with and without the goodwill in place.

The with and without method is more commonly used to value an individual's personal goodwill than it is to value institutional goodwill. Typically, based on the different sets of financial projections and the different discount or capitalization rates, the entity value is greater with the subject individual in place than without the subject individual in place.

Using the with and without method, the value of personal goodwill is estimated as the difference between:

1. the "with the individual in place" entity value and
2. the "without the individual in place" entity value.

The personal goodwill value is the difference between the two business value estimates based on the two alternative sets of projections. The financial adviser may also estimate the value of the institutional goodwill using a combination of a residual method analysis and a with and without method analysis.

The value of the entity's institutional goodwill may be estimated as the difference between:

1. the business entity goodwill value (based on the residual method analysis) and
2. the personal goodwill value (based on the with and without method).

The Goodwill Valuation

In most valuation analyses, goodwill includes concepts from both the residual and the income definitions. Financial advisers sometimes identify and value goodwill collectively as the total intangible value of a business entity. In this regard, goodwill may be valued using an aggregate residual analysis.

In such an analysis, the goodwill can be either a residual from a total business acquisition price or a business value. In this analysis, the total goodwill value is measured as the unidentified residual amount after the values of the identified tangible assets are subtracted from the total business value.

Financial advisers often measure goodwill as a discrete (or separate) intangible asset. Using this definition, goodwill is measured as the remaining unidentified intangible value of the entity after subtracting the values of all tangible assets and all identifiable intangible assets.

Accordingly, this discrete goodwill may be quantified using either a residual analysis or an income analysis. In either type of analysis, goodwill is the residual business value (or capitalized excess income) that is not allocated to any of the following assets:

1. Working capital assets (for example, receivables, prepaid expenses, and inventory)
2. Tangible personal property (for example, machinery, equipment, and vehicles)
3. Real estate (for example, land, buildings, and improvements)
4. Intangible personal property (for example, patents, copyrights, trademarks, and trade secrets)
5. Intangible real property (for example, leasehold interests, rights of way, and easements)

Goodwill Valuation Approaches and Methods

There are several generally accepted methods applicable to the goodwill valuation. After considering the similarities and differences, each method may be categorized into one of the three intangible asset valuation approaches.

As stated above, cost approach and market approach valuation methods are less commonly used, and income approach valuation methods are more commonly used in the goodwill analysis. The following discussion summarizes these valuation methods.

The Cost Approach

Using the cost approach, the financial adviser estimates the amount of current cost required to recreate the goodwill component elements. The cost approach typically involves a component restoration method.

The first procedure in the component restoration method is to list all of the individual components of the entity's goodwill. The second procedure is to estimate the amount of current cost required to replace each goodwill component. This procedure is based on the concept of goodwill as represented by the intangible value of all entity assets in place and ready to use.

One procedure in the restoration method is the analysis of forgone income (considered an opportunity cost in the cost approach) during the time period required to assemble all of the entity's tangible assets and identifiable intangible assets.

For example, let's assume that it would take two years to assemble all of the entity's component tangible assets and identifiable intangible assets. This time period represents the total elapsed time required for the assembled assets to reach the same level of utility, functionality, capacity, and income generation as exists in the actual going-concern business entity.

This hypothetical asset restoration process may include the following procedures:

1. The purchase and installation of all equipment
2. The construction or purchase of all real estate
3. The selection of suppliers
4. The creation of a distribution system
5. The hiring and training of employees
6. The building of a level of consumer recognition and confidence
7. The recreation of the current level of customer relationships

In this method, all of these component tangible assets and identifiable intangible assets are assembled at the level required to immediately accommodate the actual entity's current level of operations.

Let's consider a simple example of the restoration method. Let's assume that the actual entity earns $10,000,000 per year in income (however defined) during an expected two-year asset restoration period. The present value of the $20,000,000 in forgone income during an asset restoration period is one indication of the opportunity cost component in the goodwill value restoration method.

The Market Approach

There are two common market approach methods related to goodwill. The first method estimates the value of goodwill as the residual from an actual business acquisition price. This method is called the residual from purchase price method. The second method estimates the value of goodwill based on an analysis of guideline sale transactions. This method is called the sales comparison method.

Goodwill is rarely sold separately from any other assets (either tangible assets or intangible assets) of a going-concern business. Therefore, the selected guideline sale transactions usually involve the sale of a going-concern business.

The financial adviser selects publicly reported transactions in which the allocation of the sale price between the purchased goodwill and all other acquired assets is reported. Accordingly, this market approach method effectively relies on a residual from purchase price procedure to estimate the goodwill value.

To use the residual from purchase price method, there has to be a sale of the actual entity.

First, if there is such a sale transaction, the financial adviser confirms that the transaction was an arm's-length sale.

Second, the financial adviser confirms that the purchase price represents a cash equivalency price for the entity. For example, if there are noncash consideration components or deferred payments (for example, an earn-out provision) as part of the purchase price, the financial adviser converts the entire consideration to a cash equivalency price.

Third, the financial adviser estimates the value of each of the entity's tangible assets and identifiable intangible assets.

Fourth, the financial adviser subtracts the total value of all of the tangible assets and identifiable intangible assets from the business purchase price. The residual amount represents the goodwill value.

To use the guideline sale transactions method, the financial adviser identifies and selects actual sales of guideline entities that are sufficiently similar to the subject entity. For purposes of this analysis, comparability is typically based on the criteria of investment risk and expected return.

For certain types of businesses, such as certain types of professional practices, guideline sale transactional data are fairly easy to assemble. Such transactional data are reported in publicly available publications and periodicals. With regard to these sale transactions, the purchased goodwill may be typically expressed as a percent of the total transaction price or a percent of the total annual revenue earned by the entity that was sold in the transaction.

These market-derived goodwill pricing multiples are then applied to the subject entity to estimate the entity's goodwill value. It is noteworthy that the multiples are also estimated; that is, these transactional pricing multiples are themselves based on an allocation of the purchase price for each business or professional practice included in that transactional data source.

The Income Approach

With regard to goodwill, the income approach methods include the residual from business value method, the capitalized excess earnings method, and the present value of future income method.

Each of these valuation methods is based on the concept of goodwill as the present value of future income not associated with the entity's tangible assets or identifiable intangible assets.

The Residual from Business Value Method

The residual from business value method is based on the principle that the value of total assets (the "left hand" side of the entity's balance sheet) equals the value of total liabilities and equity (the "right hand" side of the entity's balance sheet).

Goodwill is valued as the total entity value less:

1. the value of all net working capital (or financial) assets,
2. the value of tangible assets (e.g., real estate and tangible personal property), and
3. the value of identifiable intangible assets.

There are several generally accepted business valuation methods. Financial advisers typically synthesize the value indications of one or more of these methods to estimate the value of the subject entity. Because there are many judgments made as part of any valuation, the objective of using more than one valuation method is to develop mutually supporting evidence as to the business value conclusion.

The business valuation methods that are commonly used in the residual from business value method include:

1. The direct capitalization method (an income approach method)
2. The discounted cash flow or yield capitalization method (an income approach method)
3. The guideline merged and acquired company method (a market approach method)

4. The guideline publicly traded company method (a market approach method)

The selection of these business valuation methods depends on the following:

1. The financial adviser's experience and judgment
2. The quantity and quality of available financial and operational data regarding the subject entity

Any of these methods may be used in a residual from business value analysis. The discounted cash flow method is a common business valuation method for the purpose of quantifying goodwill as the residual from a business value.

The discounted cash flow method is based on the principle that business value is the present value of the total future income to be derived by the entity's stakeholders. The discounted cash flow method typically involves revenue analysis, expense analysis, investment analysis, cost of capital analysis, and residual value analysis.

The revenue analysis involves a projection of prospective revenue from the sale of products or provision of services from the entity. This analysis may include consideration of the following market factors: expected unit sales volume, average selling price or contract rate, market dynamics, competitive pressures, price elasticities of demand, regulatory changes, and technological changes.

The expense analysis may include consideration of fixed versus variable costs, product versus period costs, cash versus noncash costs, direct versus indirect costs, overhead cost absorption principles, cost efficiency relationships, and cost-volume-profit relationships.

The investment analysis may include consideration of required minimum cash balance, days sales outstanding in accounts receivable, inventory turnover, plant utilization, and planned capital expenditures.

The cost of capital analysis may include consideration of current entity capital structure, current industry capital structure, optimal (or target) capital structure, cost of the various capital components, weighted average cost of capital, risk-free rate of return, systematic and nonsystematic equity risk premiums, and marginal cost of capital.

The residual value analysis may include the estimate of the value of the prospective cash flow generated by the entity at the end of a discrete projection period. The residual value may be estimated by various procedures, including the direct capitalization (or annuity in perpetuity) method.

Based on these valuation analyses, the periodic (typically annual) cash flow from the subject entity is projected for a discrete projection period. The term of the discrete projection period varies based on the financial adviser's judgment. Typically, the term of the discrete projection period approximately equals the average length of the industry business cycle. The discrete cash flow projection is discounted at an appropriate discount rate to determine a present value.

The residual value of the entity is estimated at the end of the discrete projection period. The residual value is also discounted to determine a present value. The present value of the discrete cash flow projection is summed with the present value of the residual value.

This summation calculation indicates the entity's total value. The entity's total value less the tangible assets value and the identifiable intangible assets value indicates the entity's goodwill value.

The Capitalized Excess Earnings Method

The capitalized excess earnings method involves the quantification and capitalization of excess income (as defined) earned by the entity. There are several variations of the capitalized excess earnings method. The following discussion presents a common application of this method.

First, the capitalized excess earnings method requires the financial adviser to estimate the required amount of income that an investor would expect given the risk of the subject entity. This procedure often involves the financial adviser's assessment of industry average rates of return on investment.

Some financial advisers apply an asset-specific rate of return on investment to each asset category. Alternatively, some financial advisers apply the entity's cost of capital as the overall required rate of return on investment. The entity's cost of capital is typically measured as the weighted average cost of capital.

In either case, the required return on investment is multiplied by the value of the net identified assets in order to quantify the amount of the required income. The net identified assets typically include all of the entity's working capital assets, tangible assets, and identifiable intangible assets.

Second, the financial adviser quantifies the difference between this required amount of income and the actual amount of income earned by the entity. If the actual amount of income exceeds the required

amount of income, then excess earnings exist at the entity.

Third, the financial adviser capitalizes the excess earnings (if any) as an annuity in perpetuity using an appropriate direct capitalization rate. The derivation of the direct capitalization rate should be consistent with the level of income used to measure the required amount of income of the entity and the actual amount of income of the entity. The result of the direct capitalization procedure indicates the goodwill value.

The Present Value of Future Income Method

The first procedure in this method is to identify all of the future income that is not associated with the entity's tangible assets and identifiable intangible assets. This identification procedure may include future capital expenditures, future mergers and acquisitions, new product or service lines, new sales territories, or new customers.

Generally, this future income is not included in the entity's current business plans or forecasts. This future income is typically not associated with entity's tangible assets or identifiable intangible assets in place as of the analysis date. Otherwise, that future income would be included in the value of the entity's tangible assets or identifiable intangible assets. Creating a projection of that future income is a challenge.

For purposes of illustrating this method, let's limit the discussion to analyzing the present value of the expected future customers of an entity. In any residual method goodwill analysis, it is common for the financial adviser to estimate and present value the prospective income associated with the current customer base.

This income projection (and the present value procedure) is typically made over the expected remaining useful life of the current customer relationships. The value of the entity's current customer base is the present value of the income to be earned from providing future products or services to current customers.

Using the present value of future income method, goodwill may be estimated as the present value of the future income to be earned from providing future goods or services to future, unidentified, customers. These future customers are unidentified new customers who (presumably) will take the place of the entity's current customers as the identified current customers retire.

The present value of future income method requires a projection of the entity's income-generating capacity. The projection begins with the expiration of the entity's current income sources (such as the identified current customers) and continues into perpetuity.

The present value of this prospective income stream (which typically provides for a capital charge or a fair return on all the tangible assets and intangible assets used to service the unidentified future customers) indicates a goodwill value. Using this method, the goodwill value is the present value of future income earned from the future sales to future (unidentified) customers.

"Using the present value of future income method, goodwill may be estimated as the present value of the future income to be earned from providing future goods or services to future, unidentified, customers."

The present value of future income method is a conceptually sound method to value goodwill. Consistent with the income-based concept of goodwill, this method quantifies and assigns all of the entity's income that cannot be associated with any of the entity's tangible assets or identifiable intangible assets.

Goodwill is quantified as the present value of all prospective income that cannot be associated with the current sources of income (for example, the entity's tangible assets and identifiable intangible assets that are in place as of the analysis date).

Long-term projections of income derived from unidentified sources (for example, from unidentified future customers) are uncertain. As a result, it may be difficult in practice to use this method to estimate goodwill value.

Goodwill under Alternative Premises of Value

A premise of value is an assumption about the set of actual or hypothetical transactional circumstances applicable to the analysis. The premise of value describes the facts surrounding the operational environment in which the defined standard of value transaction will take place. The premise of value may have an impact on the value of an entity's or an individual's goodwill.

All intangible assets, including goodwill, can be valued under the following alternative premises of value:

1. Value in continued use as part of a going concern

2. Value as an assemblage of assets in place but not in current use
3. Value in exchange as part of an orderly disposition of asset
4. Value in exchange as part of a voluntary liquidation of asset
5. Value in exchange as part of an involuntary liquidation of assets

The same goodwill of the same entity will likely have a different value conclusion depending on the premise of value that is applied in the analysis.

A value in continued use, going-concern value indication is influenced by the relative contribution and mutual economic benefits that are created by all assets of the entity.

Accordingly, the business value of most companies is greater than the sum of the values of the component tangible assets and identifiable intangible assets. One goodwill component relates to the incremental value that is created by assembling these tangible assets and identifiable intangible assets in an income-producing, going-concern business.

Goodwill is often identified and quantified in a business valuation that is conducted based on a going-concern premise of value. However, a business valuation conducted on the various value in exchange premises of value may not include the contributory value of all assembled tangible assets and intangible assets. This is because the entity's tangible assets and intangible assets are valued on an individual or piecemeal basis. Goodwill value is often limited in a business valuation that is conducted based on one of the alternative value in exchange premises of value.

For example, a business valuation that is based on a value in exchange or liquidation premise of value for a bankruptcy purpose often may not involve the identification or valuation of goodwill.

When the financial adviser selects the appropriate premise of value on which to conduct the business valuation, he or she considers whether the entity has goodwill. If goodwill exists within the entity, then it is likely that the entity does not have going-concern risk. In other words, the entity's HABU is likely to be as a going concern. Therefore, it is likely to be appropriate to value the entity (and the tangible assets and intangible assets) based on the premise of value in continued use.

However, if no goodwill exists in the entity, then that entity may suffer from going concern risk. If there is no goodwill, the financial adviser may conclude that a value in exchange premise of value represents the HABU. Typically, the selection of the appropriate premise of value is based on the HABU of the entity or the tangible assets and intangible assets.

Of course, there may be circumstances when the entity is not being operated at its HABU. In those circumstances, the goodwill may have a greater value based on a value in exchange premise of value rather than on a value in continued use premise of value.

Goodwill Data Sources

Goodwill data sources can be either internal or external to the entity.

Internal data sources typically relate to documentation regarding the entity's historical or prospective results of operations.

External data sources typically relate to empirical pricing data with regard to the goodwill of guideline business or professional practice sale transactions.

Internal Data Sources

The financial adviser considers all available data sources regarding the goodwill owner/operator. These internal data sources typically fall into the following categories:

1. The existence of identified tangible assets and intangible assets, including a detailed listing of working capital accounts, real estate, tangible personal property, and identifiable intangible assets (including intellectual property)
2. The valuation of tangible assets and identifiable intangible assets, including recent appraisals of any asset category
3. The historical results of business operations, including historical income statements,

balance sheets, cash flow statements, and capital statements

4. The prospective results of business operations, including current budgets, plans, forecasts, and projections prepared for any purpose

Information from these internal data sources can be used in the goodwill valuation.

External Data Sources

For certain industries (principally professional practices), there are publications, periodicals, and online data sources that report on the goodwill components of actual business sale transactions. Some of these data sources are listed in the next section.

Directors, Periodicals, and Newsletters

- *Bank M&A Weekly* (Charlottesville, VA: SNL Financial, weekly). *Bank M&A Weekly* is the only source dedicated to comprehensive coverage of bank and thrift industry consolidation, including branch deals and other asset transactions. Delivered via e-mail every week, each issue includes key deal ratios, buyer and target financials, industry trends, and feature stories.
- *Cable TV Investor: Deals & Finance* (Charlottesville, VA: SNL Kagan, monthly). *Cable TV Investor: Deals & Finance* provides access to data, deals, and valuation metrics in the cable TV sector. In each issue, *Cable TV Investor*: Deals & Finance brings in-depth analysis of the latest market trends and what they mean for the future.

  Data covered include private market values of public cable TV stocks, details on recent top cable TV deals, analysis of cable multiple-system operator (MSO) key growing revenue streams, operating data analysis, stock commentary, trends in financing, details on initial public offerings (IPOs), quarterly MSO census, and annual detailed cable industry forecasts.
- *Goodwill Registry* (Plymouth Meeting, PA: The Health Care Group, annual). The *Goodwill Registry* is the nation's largest database of health care practice transactions and the only source of actual goodwill values paid. Published every spring since 1981, the *Goodwill Registry* contains data organized by medical and dental specialty, state, location, and other practice characteristics.

  Many medical and dental practice consultants, financial advisers, and others find the information published in the *Goodwill Registry* to be an extremely useful tool, not only for ad hoc and formal practice valuations, but also for practice value trend analysis and more.
- *The Lawyer's Competitive Edge: The Journal of Law Office Economics and Management* (Eagan, MN: West, monthly). Practical management information to minimize falling profits, client loss, and employee dissatisfaction.
- *Merger & Acquisition Survey of Architecture, Engineering, Planning & Environmental Consulting Firms* (Natick, MA: Zweig White & Associates, annual). This comprehensive report includes all the latest data on the state of merger and acquisition activity in the design and environmental consulting industry.
- *Public Accounting Report* (Chicago: Commerce Clearing House (CCH), biweekly). The newsletter provides competitive intelligence for public accounting firms and the profession. It is renowned for its straight reporting and analysis of the news, developments, and trends that have defined the profession for more than 20 years.

  Public Accounting Report is written for public accounting firm partners and professionals, opinion leaders, and industry observers. A subscription includes 23 issues plus periodic special reports and extras, including the exclusive *Public Accounting Report* Top 100 ranking of accounting firms.
- *Valuation Survey of Architecture, Engineering, Planning & Environmental Consulting Firms* (Natick, MA: Zweig White & Associates, annual). *Valuation Survey of Architecture, Engineering, Planning & Environmental Consulting Firms* is the definitive resource for architectural, engineering, planning, or environmental consulting firms.

  The survey data included in this report and the Zweig White exclusive Z-Formulas are useful for a firm sale or merger or internal purposes, such as ownership transition or employee stock ownership plan (ESOP) purposes.

Financial Ratios

- *Almanac of Business and Industrial Financial Ratios*, by Leo Troy (Chicago, CCH, annual). This source contains financial ratios derived from federal tax returns.

Ratios for each of about 200 industries are arranged according to company asset size.

- *Industry Financial Analysis Profiles* (Camp Hill, PA: BizMiner, database). Five-year comparative analysis includes income statements, balance sheets, and key financial ratios for more than 10,000 lines of business.

  Income statement analysis includes cost of sales, officer compensation, payroll, rent, taxes, interest, amortization and depreciation, advertising, employee benefits, and other selling, general, and administrative expenses in both dollars and as a percentage of sales. Available in all firms, small business, sole proprietor, and business start-up versions.

- *Integra Industry Reports* (Kennesaw, GA: Integra Information, Microbilt Corporation, database). Available in QuickTrends, 3-Year, and 5-Year versions, which include income statements, balance sheets, and key business ratios by sales size range for over 900 industries.

  The five-year report includes cost of sales, officer compensation, employee benefits, advertising, bad debts, rent, depreciation, and other selling, general, and administrative expenses in both dollars and as a percentage of sales.

- *FINTEL Industry Metrics Reports* (Madison, WI: Fintel LLC, database). Reports provide financial information drawn from a database of over 900,000 privately held firms in over 2,500 industry groups as classified either by standard industry classification or North American Industry Classification System. Size breakdowns are into small, medium-sized, and large segments specific to each industry rather than breakdowns based on fixed size thresholds.

  Common-sized income statement and balance sheet data (major accounts) for each size segment (as-if statements) are displayed as are 14 commonly used and insightful financial ratios for each industry.

- *IRS Corporate Ratios* (Libertyville, IL: Schonfeld & Associates, annual or database). Ten years of corporate tax return data and financial ratios for over 250 industry groups is provided.

  Information provided includes income and expenses, balance sheets, and key business ratios, with data categorized within an industry group by asset size.

- *RMA Annual Statement Studies* (Philadelphia: PA: The Risk Management Association, annual). Five-year comparative analysis includes income and expenses, balance sheets, and key industry ratios categorized by sales and assets size range for over 740 industries.

  Income and expense ratios include gross profit, operating expenses, officer compensation, and depreciation and amortization expense as a percentage of sales.

Trade and Professional Organizations

- *American Bar Association*. 321 North Clark Street, Chicago, IL 60654. Phone: (800) 621-6159 or (312) 988-5000, www.americanbar.org.
- *American Institute of Architects*. 1735 New York Ave., NW, Washington, DC 20006. Phone: (202) 626-7300, www.aia.org.
- *American Institute of Certified Public Accountants*. 1211 Ave. of the Americas, New York, NY 10036-8775. Phone: (800) 862-4272 or (212) 596-6200, www.aicpa.org.
- *American Medical Association*. 515 N. State St., Chicago, IL 60610. Phone: (800) 621-8335, www.ama-assn.org.

Goodwill Value Illustrative Example

This simplified example applies the capitalized excess earnings method to estimate the professional practice goodwill value in a small corporate transaction.

In this example, let's assume that the physician owners of Zeta Physicians Clinic (Zeta) and Eta Medicine, Inc. (Eta), have decided to enter into a joint venture to provide certain acute care medical services. The joint venture will be called the Theta Medical Group ("Theta").

In this transaction, Zeta provides the Theta joint venture with the following:

1. The use (but not the ownership) of its trademark and trade name and its associated positive reputation
2. Access to (but not the ownership of) its patient charts and records and the associated patient loyalty

To simplify this example, let's assume that the financial adviser is asked to value these discrete intangible assets collectively as goodwill. Let's assume that this goodwill is the only asset to be contributed by Zeta to Theta. Eta will provide all of the tangible assets and all of the working capital assets (but no liabilities) to Theta.

Eta will contribute tangible assets and working capital assets to the Theta joint venture in an amount equal to the goodwill value contributed by Zeta. The Theta joint venture will be formed as of December 31, 2014.

The owners of Eta and Zeta have to divide the equity ownership of the Theta joint venture. The owners have agreed to allocate the equity value based on the relative values of the assets contributed by each party.

The objective of the analysis is to estimate the value of the goodwill contributed by Zeta to the Theta, as of December 31, 2014 (the valuation date). The purpose of the analysis is to allocate the Theta equity ownership.

Most of the value in the Theta joint venture is related to its expected future revenue and income. Based on the specific facts of this assignment, the financial adviser concludes that the income approach and the capitalized excess earnings method is appropriate to value the Zeta goodwill.

Exhibit 1 presents the projected balance sheet as of the December 31, 2014, date of inception of the joint venture. Exhibit 2 presents the joint venture projected next year income statement as of December 31, 2014. The projected income statement is based on the financial adviser's projection of revenue and expenses. The joint venture projected net cash flow as of December 31, 2014, is presented in Exhibit 3 on the following page.

For purposes of this analysis, the financial adviser defines excess earnings as the difference between the Theta projected total income and a total fair return on the Theta tangible assets and working capital assets. The fair rates of return applied to the Theta working capital assets, tangible assets, and goodwill are based on market-derived evidence.

Intangible assets (including goodwill) generally have a greater level of financial and operational risk than do tangible assets. And, tangible assets generally have a greater level of financial and operational risk than do working capital (or financial) assets.

Typically, intangible assets are expected to earn a higher asset-specific rate of return than tangible assets are expected to earn. Typically, tangible assets are expected to earn a higher asset-specific rate of return than financial assets are expected to earn.

Exhibit 4 presents the financial adviser's estimate of the joint venture excess earnings. Exhibit 5 illustrates the procedure for capitalizing the excess earnings into an estimate of goodwill. Based on this illustrative analysis, the value of the Zeta goodwill contribution to the Theta, as of December 31, 2014, is $2,700,000.

Exhibit 1
Zeta Physicians Clinic Goodwill Valuation
Balance Sheet as of December 31, 2014

Assets	
Current assets	$3,000,000
Property, plant, and equipment	2,000,000
Total assets	$5,000,000
Liabilities	
Current liabilities	$1,000,000
Long-term debt	1,000,000
Total liabilities	2,000,000
Owner's Equity	3,000,000
Total liabilities and owner's equity	$5,000,000

Exhibit 2
Zeta Physicians Clinic Goodwill Valuation
Projected Income Statement as of December 31, 2014

	Projected Fiscal Year Ended 12/31/15
Net revenue	$8,000,000
Operating expenses	
Cash expenses	5,400,000
Depreciation expense	1,000,000
Interest expense	100,000
Total expenses	6,500,000
Pretax income	1,500,000
Income tax expense	(600,000)
Net income	$900,000

Exhibit 3
Zeta Physicians Clinic Goodwill Valuation
Projected Net Cash Flow as of December 31, 2014

Net Cash Flow (to invested capital)		Projected Fiscal Year Ended 12/31/2015
	Projected net income	$900,000
plus:	Tax-affected interest expense	60,000
equals:	After tax net operating income	960,000
plus:	Depreciation expense	1,000,000
less:	Capital expenditures	1,000,000
less:	Increase in net working capital	100,000
equals:	Projected net cash flow	$860,000

Exhibit 4
Zeta Physicians Clinic Goodwill Valuation
Estimate of Excess Income as of December 31, 2014

Valuation Analysis	
Projected net cash flow	$860,000
Working capital asset value	2,000,000
Required rate of return [a]	6%
Fair return on working capital assets	(120,000)
Tangible asset value	2,000,000
Required rate of return [a]	10%
Fair return on net tangible assets	(200,000)
Total fair return on working capital assets and tangible assets	(320,000)
Excess income	$540,000

[a] Based on market-derived rate of return evidence.

Exhibit 5
Zeta Physicians Clinic Goodwill Valuation
Capitalized Excess Earnings Method Value Conclusion as of December 31, 2014

Valuation Analysis	Indicated Value
Excess income	$540,000
Divided by: Selected direct capitalization rate	20%
Equals: Intangible value in the nature of goodwill	$2,700,000
Value of the Zeta Physicians Clinic goodwill contributed to the Theta joint venture (rounded)	$2,700,000

Accordingly, Zeta contributed $2,700,000 of intangible asset value to Theta. And, Eta will contribute $3,000,000 of current assets and $2,000,000 of tangible assets ($5,000,000 in total) to Theta. Therefore, the Theta equity will be allocated 35 percent to Zeta ($2,700,000 ÷ $7,700,000) and 65 percent to Eta ($5,000,000 ÷ $7,700,000).

Summary

There are different types of goodwill, including (1) business or institutional goodwill and (2) personal or professional goodwill. Financial advisers are often asked to value these different types of goodwill for transaction, taxation, financial accounting, litigation, and other purposes. This discussion describes the various components of goodwill and the various reasons why financial advisers—particularly independent financial advisers—may be asked to value goodwill.

This discussion considered the types of business goodwill and personal goodwill and summarized the common components and types of goodwill.

This discussion explained that the income approach is not the only approach to value goodwill. The cost approach and the market approach may also be appropriate to a goodwill valuation.

The independent financial adviser should carefully consider which valuation approach is most appropriate for the specific type of entity and the specific type of assignment.

In addition, with consideration of any instruction provided by legal counsel, the financial adviser should apply a valuation approach and valuation method that concludes the standard of value and premise of value appropriate to the purpose and objective of the goodwill valuation.

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Due Diligence Related to Financial Projection Bias in Pricing M&A Transactions

Michael A. Harter

For many participants in a transactional setting or a merger and acquisition setting, judgments about the merits of a deal may contain bias. Bias among transaction participants can create subtle risks by potentially producing biased valuations of the target or acquiring company. The income approach—discounted cash flow method—is a widely used valuation approach in transaction settings. Central to the application of the discounted cash flow method are management-prepared projections. When applying the discounted cash flow method in a transaction setting, the valuation analyst needs to be aware of potential bias that can permeate management-prepared projections. This discussion highlights several types of bias the valuation analyst may find in management-prepared projections. This discussion then presents the steps the valuation analyst can take to analyze and correct management-prepared projections from bias when applying the income approach—discounted cash flow method—in a transaction setting

Introduction

A corporate merger or acquisition (M&A) involves a multitude of complex transaction participant decisions that are likely made under conditions of uncertainty. In the prelude to a merger and acquisition (M&A) transaction, judgment about the merits of a deal may contain bias.

The acquiror company management may have grand visions of managing a more diversified company, investment banks may be incentivized to close a transaction, and compensation at the acquiring company and target company may incentivize an outcome that is different from the originally defined transaction objectives. Similarly, a lack of independence between management and the board of directors can lead to important considerations being overlooked in an M&A transaction.

Bias among such transaction participants, and specifically senior management, can create additional transaction risks by potentially producing biased target company valuations. The cash flow projections used to estimate the value of a target company may:

1. reflect stronger performance than is warranted by industry trends,
2. include identified post-acquisition synergies that may not be realized, and
3. incorporate costs to achieve synergies that may be understated.

Similarly, the projected cash flow may be discounted using discount rates that do not fully account for market and industry risks.

The valuation analyst's role in M&A transactions is generally related to providing the acquiror company (and/or the target company) business valuations for purposes of (1) a transaction fairness opinion and (2) senior management strategic planning.

While the valuation analyst should consider all generally accepted business valuation approaches and methods, the income approach—discounted cash flow (DCF) method—is widely used to value businesses in an M&A transaction setting.

In an M&A transaction, the valuation analyst can provide significant value by locating bias in the management-prepared financial projections that are used in the income approach—discounted cash flow analysis.

This discussion focuses on applying the income approach—DCF method—when performing a business valuation in an M&A setting, specifically as it relates to the treatment of company management-prepared financial projections. In an M&A transaction, the valuation analyst often relies on information provided by management, and that information may contain one or more types of bias.

This discussion considers the following topics:

1. The types of bias that may occur in a proposed M&A setting
2. The ways that financial projection bias can enter the valuation process
3. How the valuation analyst can protect against bias when applying the income approach—DCF method

Valuation in Proposed M&A Transactions

The role of the valuation analyst in a proposed M&A transaction is generally to:

1. provide a business valuation to assist in the preparation of a formal fairness opinion of the proposed transaction or
2. provide a business valuation for purposes of management strategic planning.

A business valuation is generally useful in a proposed M&A transaction to assist the acquiring company to develop an acquisition price for the target company. Similarly, the acquiror company generally retains a valuation analyst to determine whether the acquiror's transaction offer price is reasonable.

These business valuations are conducted during the due diligence phase of the M&A transaction. After the due diligence phase, the valuation analyst, working with the acquiror company, can assist in making changes to the transaction offer price. Such offer price changes are the result of new information that changes the future outlook of the target company.

Likewise, the valuation analyst working with the target company can assist the target's management to evaluate and understand any changes in the acquiror's transaction offer price.

In a proposed M&A transaction setting, there are many different methods available to value a target company.[1] In an M&A transaction, the three generally accepted business valuation approaches are (1) the income approach, (2) the market approach, and (3) the asset-based approach. Within each generally accepted valuation approach, there are a number of generally accepted business valuation methods. The valuation analyst will typically consider each approach and method when valuing a business for an M&A transaction.

This discussion focuses on the income approach as it is generally the preferred method when valuing a business in a proposed M&A transaction setting.

According to Shannon Pratt, "In the simplest sense, the theory surrounding the value of an interest in a business depends on the future benefits that will accrue to its owner. The value of the business interest, then, depends upon an estimate of the future benefits and required rate of return at which those future benefits are discounted back to present value as of the valuation date."[2]

This statement especially holds true in a proposed M&A transaction.

The DCF Method and Company Management-Prepared Financial Projections

Within the income approach there are several generally accepted valuation methods. Each of these methods is based on the economic principle that the value of an investment is a function of the economic income that will be generated by that investment over its expected life.

As presented above, the DCF method is widely used to value acquisition target companies. This is because it incorporates the trade-off between risk and expected return, which is an important component to estimate value.

As documented in past opinions, the Delaware Court of Chancery (the "Court"), which is an important forum for shareholder and other commercial litigation, has indicated that a preferred method in valuing shareholder stock is the DCF method. As opined in *Crescent/Mach I Partnership, L.P. v. Turner*:

> [T]he Court tends to favor the discounted cash flow method ("DCF"). As a practical matter, appraisal cases frequently center around the credibility and weight to be accorded the various projections for the DCF analysis.[3]

The judicial decisions of the Delaware Court of Chancery are often relevant to M&A pricing and structuring activity. This is because such judicial decisions deal with dissenting shareholder appraisal rights and shareholder oppression litigation matters. Such tort claims can occur as a result of an M&A transaction.

The DCF method provides an indication of value by:

1. estimating the future economic earnings of a business and
2. estimating an appropriate risk-adjusted required rate of return used to discount the estimated future economic earnings to present value.

This discussion focuses on estimating the future economic earnings of a business, and specifically on identifying and correcting for potential bias in any management-prepared projections.

When using the income approach, the analyst will align the earnings measure to the subject of the valuation. If the valuation subject is the value of the target equity, then the appropriate earnings measure is "net cash flow to equity." If the valuation subject is the target business enterprise value, the appropriate earnings measure is "net cash flow to invested capital."

After the valuation analyst determines the measure of economic earnings to analyze in the DCF method, the next procedure is to project the earnings over a future time period. A common procedure to estimate the future economic earnings of a company is to obtain management-prepared financial projections.

Importance of Management Projections

In applying the DCF method, the valuation analyst generally obtains management-prepared financial projections. This is partly due to the fact that the Court seems to prefer management-prepared projections over any alternative (and, particularly, post-litigation filing date) projections. In fact, the Court has rejected alternative financial projections that were created solely for the purpose of litigation.

As explained in the *Agranoff v. Miller* decision:

> [C]ontemporary pre-merger management projections are particularly useful in the appraisal context because management projections, by definition, are not tainted by post-merger hindsight and are usually created by an impartial body. In stark contrast, post hoc, litigation-driven forecasts have an "untenably high" probability of containing "hindsight bias and other cognitive distortions."[4]

The Court's opinion suggests that bias can exist in management-prepared financial projections when such projections are not prepared in the ordinary course of business. For many target companies, a proposed M&A transaction setting is not an ordinary course of business. Therefore, management-prepared financial projections developed for a transaction may be placed under additional scrutiny by the valuation analyst until the reasonableness of such projections can be confirmed.

In some transaction settings, and often unknown to management, management-prepared financial projections may contain one or more types of bias. When valuing a proposed target company for M&A transaction purposes, it may be the responsibility of the valuation analyst to identify potential biases and, if needed, to use more realistic financial projections when performing a valuation.

Types of Financial Projection Bias

To identify potential financial projection bias when valuing a target company, the valuation analyst first analyzes historical financial statements. Historical financial statements serve as the foundation by which all future valuation assumptions and financial projections should be compared.

In reviewing historical financial statements, the analyst is provided a better understanding of the target company and its future prospects. A thorough understanding of the target company may also be needed to question management about future operating prospects.

When using the DCF method, the analyst may rely on management to develop financial projections regarding the company's post-transaction operations. The valuation analyst may need to be aware of different types of financial projection bias that may be present. The five types of management-prepared financial projection bias the valuation analyst should be aware are discussed below.

Overconfidence

Many mergers are justified based on expected post-merger synergies and cost savings. For revenue synergies to be realized, there should be an integration plan that involves new investments or growth initiatives. A common problem with these plans is overconfidence in the management estimates of what economic benefits can be achieved.

Overconfidence bias may occur when someone overemphasizes his or her own judgment or ascribes

an unduly high probability of success to the forecast.[5]

Aside from the roll that overconfidence plays in overly optimistic financial projections, synergies, and costs savings, overconfidence may also be one of the reasons the proposed M&A transaction is initiated. If senior management is overconfident in its ability to assess the worthiness of a proposed M&A transaction, then management may be more likely to initiate an offer.[6]

Overconfidence can easily cascade through many decisions that should require independent and objective analysis. Overconfidence can affect management-prepared financial projections by assuming (1) high post-transaction growth rates, (2) synergies being realized too quickly, and (3) achievement of operating margins through post-merger synergies that are higher than warranted.

In addition to overconfidence affecting management-prepared financial projections, depending on the competitive structure of the subject industry, an overconfident management team may project that the post-transaction company could be in a more advantageous competitive position than is warranted.

Confirmation Bias

Confirmation bias occurs when individuals seek out information that confirms their initial hypothesis.[7]

Similarly, individuals can attach too much importance to information that supports currently held views relative to information that runs counter to their views. Confirmation bias can lead to the persistence of false beliefs, as individuals filter out potentially useful information and opinions that don't coincide with their preconceived notions.

Confirmation bias can be present especially during the due diligence phase of a proposed M&A transaction when the acquiring firm is developing a price for the target company that is attractive enough to move the transaction forward. The need to offer an acceptable bid may bias the analysis going forward. This is because some individuals may feel a need to continue supporting the initial bid even as new information is received.

Confirmation bias can affect management-prepared financial projections by being overly optimistic in regard to revenue opportunities and the ability to cut costs and/or achieve greater scale. This is because contrary information is not given adequate consideration.

Planning Fallacy Bias

Planning fallacy bias refers to the tendency for individuals to underestimate the time, money, and other resources needed to complete major projects.[8] For companies with a longer history of performing mergers and acquisitions, the planning fallacy bias is not as important. This is because the acquiror company can review how and why initial schedules to integrate transactions were not realized.

For smaller companies where acquisitions occur less frequently and management has less experience in the M&A process, the planning fallacy can be a significant bias resulting in more time and resources being devoted to the M&A transaction.

The planning fallacy can affect management-prepared financial projections by assuming revenue growth and/or synergies are realized sooner than is warranted. Therefore, revenue growth may be overstated and improvements in margins through post-merger synergies may be too high. Ultimately, the acquiror company's realization of lower revenue and higher expenses will reduce the value of the post-transaction company.

Commitment Bias

Commitment bias occurs when the individuals justify increasing investment in a previously made decision despite new evidence that suggests continuing the investment is more costly than the expected economic benefit.[9]

Managers can become emotionally attached to a transaction before fully considering alternatives, which can lead to commitment bias.

As noted above, the first stage of an M&A transaction is the due diligence phase, which has the potential to create momentum for the transaction. This is because participants may not want to waste the time and resources already spent. Once momentum develops, it can be difficult for management teams to turn back without setting up a proper process to evaluate when the M&A transaction should be abandoned.

Commitment bias can become more severe if there are multiple potential buyers for a target company; this is because the competition to win the transaction increases.[10]

In a competitive bidding scenario, the ultimate winner will have the most optimistic valuation of the subject company. In these settings, it is important for managers to counter the escalation of commitment bias by establishing clear criteria under which a transaction should be further investigated after new information is received.

It is important for the managerial decision-making process to be structured in a way that enables managers to be intentional about when and why they are challenging or changing the initial transaction criteria.

Incentive Bias

A fifth form of bias is incentive bias. This type of bias occurs when management has a financial incentive to complete a transaction. Financial incentives (salary or stock options) can push a transaction forward even if new information reduces support for the transaction's benefit to the company.[11]

With financial incentives not always aligned properly, it should not be a surprise that empirical evidence suggests that many acquisitions are value-destroying.[12]

Incentive bias may push senior management to prefer a high or low price depending on the M&A context. And, the analyst may be pressured to accommodate the valuation according to his/her superior's expectations. This is because the potential payoff to the superior can be high.

For example, an M&A analyst working for the investment banker to the acquiror company in a hostile takeover may arrive at a lower value than the M&A analyst working for the investment banker to the target company in a friendly takeover. Depending on the situation, the analyst should keep in mind how financial incentives may bias the valuation in regard to using aggressive assumptions versus reasonable assumptions.

Incentive bias will be difficult to identify in management-prepared financial projections. Instead, of examining management-prepared financial projections, incentive bias can best be identified by reviewing senior management compensation agreements.

The valuation analyst should keep in mind that, for larger companies, high levels of senior management compensation in the post-transaction company may affect the operating performance of the company less when compared to misplaced assumptions regarding revenue growth and improvements in operating margins such as earnings before interest, tax, depreciation, and amortization (EBITDA) or earnings before interest and tax (EBIT).

Protecting against Bias in M&A Valuations

After the valuation analyst is aware of the different types of bias that may exist in management-prepared financial projections, the next procedure is for the analyst to understand how to protect the valuation from bias when using the income approach—DCF method.

The Court has opined that, when applying the DCF method to a subject company, the valuation analyst due diligence process should include an

analysis of the assumptions on which management's projections are based.

As explained by the Court in *In re John Q. Hammons Hotels Inc. Shareholder Litigation* decision:

> Generally, management projections made in the ordinary course of business are considered to be reliable. In this case, however, testimony at trial established that management's projections were not created in the ordinary course of business. [Plaintiff's expert], nonetheless, performed no independent analysis of the assumptions underlying management's projections and did nothing to determine whether those projections were prepared by management in the ordinary course of business.[13]

As discussed in the text, *Understanding Business Valuation*, there are three general questions that the valuation analyst may consider when analyzing management projections.[14] First, are the management-prepared financial projections taking into account current economic conditions? Second, are the financial projections in accordance with industry trends? Third, do the financial projections appear reasonable after analyzing company-specific factors?

Understanding these three areas will help the valuation analyst to identify and protect management-prepared financial projections from bias. Each of these three areas is discussed below.

Economic Conditions

It is important for the valuation analyst to understand the effects of economic conditions on the target company. By researching current economic conditions, the analyst identifies the

macroeconomic factors over which the target company has no control. Identifying trends that may be favorable or unfavorable to the target company helps the valuation analyst better understand what growth rate is achievable.

As discussed in *Financial Valuation*, the issues that valuation analysts commonly consider when analyzing a local economy include the following:

1. Whether the local economy is largely dependent on a single employer or industry
2. The extent and condition of the area's infrastructure
3. Announcements of major plant openings or closings
4. Income levels and poverty rates
5. Attitudes of local officials toward attracting new employers
6. Population growth[15]

By understanding these economic factors, the valuation analyst is in a better position to understand the target company's economic challenges and opportunities within the region(s) where it operates.

Industry Trends

An industry analysis allows the valuation analyst to identify industry trends. When examining the target company industry trends, *Financial Valuation* suggests that the valuation analyst consider the following questions:

1. What are the industry's prospects for growth?
2. What are the industry's dominant economic traits?
3. What competitive forces are at work in the industry and how strong are they?
4. What have traditionally been the drivers of change in the industry and what effect will they have in the future?
5. Which companies are in the strongest/weakest competitive positions?
6. What factors will determine competitive success or failure?
7. How attractive is the industry in regard to its prospects for above-average profitability?
8. Are barriers to entry low or high?[16]

To identify potential sources of bias, the analyst may determine whether management-prepared financial projections align with the subject industry's historical, current, and projected economic performance. Unless the analyst's specific area of focus is the subject industry, the analyst will often rely on the target company management to develop an understanding of how the industry operates.

The consideration of the industry and of industry trends is a common due diligence procedure for the analyst to corroborate whether management financial projections are reasonable. There are many sources of industry data and information for the analyst to consider including trade associations, fee-based sources, and free data information resources.

While it is not practical to list all available sources of industry data in this discussion, some of the useful sources of industry information and data include the following:

1. Standard & Poor's Industry Surveys
2. IBISWorld Industry Reports
3. First Research Industry Profiles
4. MarketResearch.com
5. National Trade and Professional Associations of the United States

Analyzing industry metrics from these sources should provide the valuation analyst with an understanding of the current state of the target company industry, the trends that have been affecting the industry in the past, and the key drivers shaping the industry in the near future.

Company-Specific Factors

When looking at company-specific factors, *PPC's Guide to Business Valuations* suggest that the valuation analyst examine the following company-specific assumptions related to management-prepared financial projections:

1. Assumptions about revenue and receivables
2. Assumptions about cost of sales and inventory
3. Assumptions about other costs including selling, general, and administrative costs
4. Assumptions about property, equipment, and related depreciation
5. Assumptions about debt and equity levels
6. Assumptions about income taxes[17]

Comparing the target company's historical financial statements (in addition to the areas discussed above) may provide the analyst with sufficient information to identify whether the management-prepared financial projections are reasonable.

Therefore, to insulate management-prepared financial projections from bias, the valuation analyst may research three areas.

First, the valuation analyst will understand the economic conditions under which the target company operates. Second, the valuation analyst will develop an understanding of the target company industry. Third, knowledge of company-specific factors may allow the analyst to identify where management-prepared financial projections are reasonably close to the past historical operating performance of the target company and within industry norms.

Examining economic conditions, industry trends, and company-specific factors may provide the analyst with a better ability to identify where management-prepared financial projections may contain bias.

Applying the Three Factors

After the analyst has reviewed the three factors listed above, the valuation analyst may test the management-prepared financial projections for bias.

Confirmation Bias

The analyst can test for confirmation bias by questioning management's assumptions and determining whether multiple scenarios have been included when developing the management-prepared financial projections. For example, has management sought out contrary evidence and opinions about the merits of the acquisition and likely synergies? Has management explicitly identified the assumptions used and have these assumptions been sufficiently challenged?

The analyst may verify whether outside experts have been consulted about the challenges of integrating the proposed acquisition.

Overconfidence

The analyst can identify overconfidence bias if management-prepared financial projections are too optimistic in regard to integrating the transaction, developing synergies, cutting costs, or growing revenue. One way for the analyst to determine whether this level of optimism is present is by comparing the management-prepared financial projections with the historical operating performance of the target company.

The valuation analyst may compare company-specific metrics mentioned above to see whether the post-transaction company deviates far from its past. If the acquiror company has performed M&A transactions in the past, older transaction projections may be compared to subsequent financial results. In any M&A transaction, the analyst may discuss the financial projections with the senior management and determine whether the assumptions used are reasonable. Again, the analyst may use knowledge of the industry and company-specific factors when questioning management assumptions.

Planning Fallacy

The planning fallacy may show up in management-prepared financial projections through an unrealistically fast integration of the transaction. Expenses associated with the transaction may be understated, resulting in improved operating margins earlier than is warranted. The analyst may review the acquiror company's previous transactions and the accuracy of previous management-prepared financial projections when integrating a new company.

The valuation analyst may ask senior management about their experience of integrating transactions in the past and how the current transaction is similar or different.

Commitment Bias

It may be difficult for the analyst to determine whether commitment bias exists by examining management-prepared financial projections alone. The analyst may uncover commitment bias through more qualitative factors, such as identifying the level of commitment that management offers.

The analyst may also identify whether management opinions change as new target company information is received. If the acquiror increases the target price without sufficient information for doing so, or refuses to lower the offer price after receiving negative information, then senior management may be overly committed to completing the proposed transaction.

Incentive Bias

As mentioned, incentive bias can be identified by reviewing senior management compensation agreements. The analyst may determine what metrics are being used to evaluate senior management performance. Is compensation based on improvement in operating metrics or company size? The valuation analyst may also compare the acquiror company senior management compensation with senior management compensation in the industry.

Conclusion

In a proposed M&A transaction, the valuation analyst may be retained to help the acquiror company estimate an acquisition price for the target company. The valuation analyst may also be retained by the target company to evaluate the merits of the proposed offer price.

The valuation analyst provides expertise early in the due diligence phase of the M&A transaction. And, the analyst helps senior management review new information as it becomes available and helps evaluate any changes to the offering price.

In the proposed M&A transaction setting, the valuation analyst may consider multiple valuation methods. However, since the value of an investment is based on the economic income that will be generated over the life of the investment, the income approach—DCF method—is often used in a transaction setting.

Management-prepared financial projections are an important component of the income approach—DCF method. Management-prepared financial projections show how the target company will likely operate post-transaction.

For the valuation analyst, the management-prepared projections are a component of the income approach—DCF method. However, management-prepared financial projections may contain bias.

It is the valuation analyst's responsibility to identify and protect the valuation from bias. By identifying different types of financial bias that may be present during a proposed M&A transaction, and by understanding where bias may exist in the management-prepared financial projections, the analyst is in a better position to correctly apply the income approach—DCF method.

Specifically, the valuation analyst will first understand how economic conditions affect the target company. The valuation analyst may consider the target company's industry to determine whether management-prepared financial projections are consistent with the industry's operating performance and trends.

The valuation analyst may verify whether management-prepared financial projections are consistent with the target company-specific metrics. After reviewing these three areas, the valuation analyst can:

1. better identify where bias may exist in management-prepared financial projections and
2. correctly apply the income approach—DCF method—in the analysis of the proposed M&A transaction.

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Solvency Opinion Scenario Analysis

C. Ryan Stewart

A scenario analysis is a common procedure within the cash flow test performed as part of a fraudulent transfer or other solvency analysis. The purpose of such a scenario analysis is to help assess the risk inherent in a proposed leveraged transaction. Depending on the nature of the debtor company and on the terms of the proposed corporate transaction, the preparation of a scenario analysis within the context of a solvency opinion can be a complex undertaking. A thorough understanding of the linkages between the company risk factors and the company cash flow drivers will help the financial adviser produce a reliable transaction opinion. This discussion focuses on the application of scenario analysis in the cash flow test, the different types of debtor company operating scenarios, and the scenario development procedures commonly used by the financial adviser.

Introduction

Independent financial advisers are often asked to issue solvency opinions in order to provide an assessment of a debtor company's solvency as of the date of a proposed leveraged transaction.

A debtor company board of directors will often request that a solvency opinion be procured as part of its due diligence process in order to fulfil its duty of due care. Examples of corporate transactions that may involve the preparation of solvency opinions include, but are not limited to, the following:

1. Leveraged dividend recapitalizations
2. Equity security redemptions
3. Leveraged asset purchases
4. Substantial liability payments

In many instances, the types of corporate transactions involve the debtor company incurring large amounts of debt, thus necessitating the preparation of a solvency opinion. When performing a solvency opinion, the financial adviser often performs the three tests related to fraudulent transfers:

1. The balance sheet test
2. The cash flow test
3. The capital adequacy test

The balance sheet test and the capital adequacy test are beyond the scope of this discussion.

This discussion focuses on scenario analysis considerations for the cash flow test. Specifically, this discussion (1) explains how scenario analysis, including sensitivity and stress tests, are used when performing the cash flow test; (2) describes several different types of company operating scenarios; and (3) describes how the financial adviser uses information gained through the due diligence procedures to develop scenarios and to perform sensitivity and stress tests as part of the cash flow test.

Summary Description of the Cash Flow Test

The cash flow test is used to assess the debtor company's ability to pay its financial obligations (including any new debt related to the proposed leveraged transaction) as those obligations mature.

The starting point for the cash flow test is typically a set of earnings or cash flow projections developed by the debtor company management. The length of the projection period should be equal to the length of the repayment period for any proposed financing related to the transaction.

The financial adviser will use the financial projection to estimate the debtor company's cash flow,

after taking into account both operating and financing obligations. In addition, the financial adviser will consider the expected capital investment and working capital needs of the debtor company.

The cash flow test is "passed" if the debtor company has the ability to meet its financial obligations and to remain in compliance with any debt covenants in each year of the projection period.

As part of his or her due diligence, the financial adviser generally will also perform a scenario analysis. This scenario analysis may include sensitivity and stress testing. The financial adviser may perform these procedures in order to help further assess the risk of debtor company insolvency caused by the proposed transaction.

This due diligence exercise may be especially rigorous when the debtor company is operating in a risky or volatile industry or is highly levered prior to the execution of the proposed transaction.

The scenario analysis can be a useful risk management tool for both fiduciaries and managers. This is because the scenario analysis has the added benefit of giving these parties insight into how the proposed transaction debt may affect the financial stability of the debtor company under various operating conditions.

Scenario Analysis

The terms "scenario analysis" and "sensitivity analysis" are often used interchangeably. However, for the purposes of this discussion, a distinction can be made.

While a scenario represents the set of circumstances that the debtor company could face in the future, the sensitivity analysis is related to the observed outcomes achieved by changing key variables of the scenario.

For purposes of this discussion, a scenario is defined as follows:

> a possible future environment, either at a point in time or over a period of time. A projection of the effects of a scenario over the time period studied can either address a particular firm or an entire industry or national economy. To determine the relevant aspects of this situation to consider, one or more events or changes in circumstances may be forecast, possibly through identification or simulation of several risk factors, often over multiple time periods.[1]

A scenario analysis can be thought of as deterministic or stochastic in nature. A deterministic analysis typically has single-point estimates for key inputs and outcomes determined by the parameter values.

On the other hand, a stochastic analysis will have one or more random variables and is used to estimate the probability of outcomes within a forecast. A common example of a stochastic analysis is a Monte Carlo simulation. While certain elements of this discussion may be applicable to both deterministic and stochastic scenario analyses, the primary focus of this discussion is on deterministic scenarios.

The deterministic scenario analysis will typically include a base case scenario, a zero growth scenario, and a downside risk scenario. However, certain situations may call for a more robust analysis. Such an analysis may include several types of scenarios and multiple sensitivity and stress tests.

Types of Scenarios[2]

Scenarios can be grouped into several broad categories, including the following:

1. Single event scenarios
2. Multi-event scenarios
3. Historical scenarios
4. Reverse scenarios
5. Synthetic scenarios

Single event scenarios are relatively straight forward and are usually not the types of events that would result in a chain of successive events.

However, multi-event scenarios are the result of multiple factors that cause a chain of successive events due to causal linkages between various factors.

Reverse scenarios are developed by determining what set of conditions will lead to a specified financial result. This type of analysis often presents a challenge. This is because such an analysis involves a comprehensive understanding of the risk dynamics of the subject debtor company.

Historical scenarios are based on actual historical events. The advantage of historical scenarios is that the short, medium, and long-term effects of the event can be observed.

Further, the effect of the event on specified risk factors and the relationships between risk factors can be studied. Based on this study, the financial adviser can make proper adjustments when developing a scenario that assumes a similar event occurs at some point in the future.

Synthetic scenarios involve hypothetical circumstances that have not been observed but could

occur at some point in the future. An example of a synthetic scenario would be the development of breakthrough technologies.

Synthetic scenarios may be more subject to challenge. This challenge may occur because such scenarios incorporate more assumptions than do other types of scenarios, and the scenario assumptions may be more subjective in nature.

No matter the type of scenario, care should be taken to consider and understand the types of operational disturbances (including factors that may be internal or external to the debtor company) that could cause such scenarios.

Examples of the categories of internal and external factors include economic, industry, and company-specific factors. When designing scenarios, elements falling into any or a combination of these categories can be used as the event catalyst or as the basis of the scenario.

Management-Prepared Financial Projections Are the Starting Point

The scenario analysis process typically starts with general due diligence regarding the debtor company followed by a thorough analysis of the company's financial projections, which often serve as the first scenario.

It is the financial adviser's responsibility to make sure that the length of the projection period corresponds to the length of the repayment period for any new debt related to the proposed transaction. Further, it is the responsibility of the financial adviser to consider the reasonableness of the financial projections provided to the adviser by the debtor company management.

The financial adviser's due diligence regarding (1) the debtor company's operations and (2) the reasonableness of the financial projections can yield valuable information that can be used in developing meaningful scenarios. Additionally, this information may provide a road map to areas of risk within the debtor company's operations.

The financial adviser should understand the narrative behind the financial projections and the relationships between the assumptions and variables that drive the projections. When developing scenarios, the financial adviser uses this knowledge to ensure that changes to key variables:

1. correctly flow through the model and
2. accurately reflect the relationships between cash flow drivers.

The diligence related to the financial projections also helps the financial adviser to be able to recognize additional scenarios that should be analyzed.

The following illustrative questions are financial-projection-specific inquiries that may aid the financial adviser due diligence efforts:

1. What is the functional use or purpose of the financial projection?
2. How experienced is the subject company management in preparing financial projections?
3. When were the financial projections prepared?
4. How does the company's current financial projection reconcile to past projections?
5. How closely does the company's most recent actual performance compare to the prior year's financial projection?
6. How comprehensive are the financial projections and the supporting documentation?
7. Who prepared the financial projections?

These questions may help the financial adviser to identify risks associated with the financial projections. For example, if the projections provided by management for the base case scenario are a year old and more recent operating results show a negative variance relative to the projection, then there may be an increased level of risk associated with the company achieving the level of performance presented in the projection. In that case, a potential scenario more in line with the company's most recent performance may be appropriate.

Financial projections that are considerably higher than operating historical performance may raise a red flag and may reflect a new product launch, acquisitions, or other corporate actions that may not prove to be successful.

In this case, the financial adviser may consider developing a scenario that removes the impact of the risky corporate action.

Further, the purpose of financial projections can have an impact on how they should be perceived and may indicate aggressive or conservative bias. Financial projections that were previously used in relation to a potential merger transaction and are also provided to the financial adviser for a solvency analysis may appear to be optimistic relative to historical performance. In this case, a potential scenario could be a scaled back level of financial performance based on historical growth rates or industry benchmarks.

A financial projection reasonableness analysis may be a component of the solvency analysis. This

is because such a reasonableness analysis encompasses the evaluation of many factors and requires the understanding of the interrelationships of these factors while also considering the impact of outside influences on company-specific risk elements.

The financial adviser will develop a thorough understanding of the mechanics of the debtor company projection model—as well as the "story" supporting the projection—before moving forward with the scenario analysis.

Developing Additional Scenarios

There are several ways to develop relevant and plausible scenarios using various sources of data. Based on the information gathered through the due diligence process, the financial adviser can create any type of scenario previously mentioned in this discussion based on event causal factors that could be detrimental to the company. As mentioned previously, the categories of causal factors include economic, industry, and company-specific.

Economic and industry based scenarios will necessarily have a company-specific component. This is because the effect of economic and/or industry stimuli on each company may be slightly different based on unique attributes such as management culture, operating model, cost structure, and management depth.

Economic Scenarios

When performing due diligence in relation to a solvency analysis, a financial adviser may perform economic research to understand historical trends and the economic outlook as of the solvency date.

Many times during this research, the financial adviser may take notice of various factors or assumptions with an element of uncertainty that could serve as the basis for scenarios in the cash flow test.

For example, while all companies have a certain level of exposure to general economic conditions, certain companies that are more directly correlated to general economic health may be more sensitive to variances in economic indicators. If the economy and, therefore, the debtor company were to perform at a lower level than indicated in the financial projection, then the company solvency status could be affected. This may be a scenario worthy of analysis.

Industry-Based Scenarios

When the financial adviser is preforming industry due diligence research, he or she may find information regarding the expected growth of the industry, historical and prospective sector performance. In addition, the financial adviser may learn about factors that influence industry dynamics such as expected new technology, industry consolidation or fragmentation, changes to barriers to entry, and regulatory changes.

As with the other risk factors identified in this discussion, debtor company management may use current, historical, and forward-looking industry data in conjunction with other data in order to:

1. develop strategic plans,
2. project profitability, and
3. estimate capital needs.

The unfavorable divergence of any of these aforementioned industry factors from the assumptions used in the financial projection has the potential to change the debtor company solvency status if appropriate plans to mitigate risks are not in place.

Therefore, a robust cash flow test scenario analysis will usually incorporate industry-related risk elements, such as those mentioned above, into one or more scenarios.

Company-Specific Factors

There are many company-specific risk factors that would be informative when included in scenarios for the cash flow test. The debtor management team may be a valuable resource for assistance in identifying the company's unique areas of risk that may be modeled as part of the cash flow test.

This information may be gained from management interviews as well as from debtor company financial reports, strategic plans, and other corporate documents.

The aforementioned management sources can alert the financial adviser to any unique elements of risk, such as the following:

1. Geographic concentration
2. Customer concentration
3. Key person dependence
4. Supplier concentration
5. Technology or other intellectual property obsolescence
6. Lack of product or service diversification
7. Unique exposure to changes in laws or regulations
8. Potential or existing litigation
9. Strained supplier relations
10. Strained employee relations
11. Plant physical capacity constraints
12. Plant and equipment obsolescence

For example, let's assume that, after gathering information related to the items listed above, the financial adviser discovers that the debtor company:

1. generates over 30 percent of its revenue from a single customer that happens to be the client of a key relationship manager,
2. has been operating for five years,
3. has one product,
4. has increased revenue by over 300 percent over the last three years, and
5. is expecting to reduce the level of total revenue attributable to one client to 10 percent over the next three years by growing its customer base.

An example scenario that the financial adviser could develop from the information gathered, would be the loss of the key relationship manager. This scenario would necessarily involve a reduction in projected revenue.

However, the extent of the cash flow loss depends on the company factors such as management's responsiveness and experience with financial hardship and company turnarounds. The company's ability to adjust its cost structure and to replace lost revenue should be reflected in the scenario.

Sensitivity Analysis

After developing several scenarios, the financial adviser may run sensitivities of all or certain scenarios to observe the outcomes resulting from incremental changes in the key variables.

A sensitivity is defined as:

> the effect of a set of alternative assumptions regarding a future environment. This alternative scenario can be the result of a single or several alternative risk factors, occurring either over a short or long period of time. A scenario used for sensitivity testing usually represents a relatively small change in these risk factors or their likelihood of occurrence. Since a sensitivity test represents the effect of a scenario, it usually reflects the effect of multiple related factors or their likelihood of occurrence.[3]

For example, when a financial adviser uses the debtor company management projections as a starting point and then adjusts the variables to reflect small changes in execution of management's plan, then that is a sensitivity analysis.

In the example about the key relationship manager, an appropriate sensitivity to perform would be to vary the revenue lost by the debtor company due to the departure of the key relationship manager.

By reviewing the outcomes to various sensitivities, the financial adviser may be able to observe the responsiveness of the cash flow relative to changes in the key variables within the framework of the given scenario.

Stress Testing

A stress test is defined as:

> a projection of the financial condition of a firm or economy under a specific set of severely adverse conditions that may be the result of several risk factors over several time periods with severe consequences that can extend over months or years. Alternatively, it might be just one risk factor and be short in duration. The likelihood of the scenario underlying a stress test has been referred to as extreme but plausible.[4]

"The financial adviser may include stress tests in the cash flow test scenario analysis in order to evaluate the debtor company's ability to meet its debt obligations under extreme operating conditions."

The financial adviser may include stress tests in the cash flow test scenario analysis in order to evaluate the debtor company's ability to meet its debt obligations under extreme operating conditions.

The stress test may stretch the company to the point that projected cash flows are insufficient to meet projected debt obligations in one or more periods. However, the goal is to gauge how much operational adversity the company can withstand after taking on the new debt related to the proposed transaction. As with other scenarios analyzed as part of the cash flow test, the financial adviser may consider any company mitigating actions.

Examples of stress test scenarios include, but are not limited to, natural disasters, terrorist attacks, political instability (revolution, regime changes), regulatory changes, economic recession/depression, and war as well as company-specific situations such as the loss of key people, unfavorable judgment in a lawsuit, product obsolescence, and fraud.

The stress tests can also be extreme versions of scenarios already used in the analysis. For example, a scenario involving the loss of a key relationship manager was discussed previously. A stress test version of this scenario would be if the key relationship manager not only left the debtor company along

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Transaction Structure Issues Regarding the Purchase/Sale of a Financially Distressed Company

Katherine A. Gilbert

A merger or acquisition (M&A) transaction involving a financially distressed company can be structured as either a stock sale/purchase or an asset sale/purchase. Depending on the transaction structure, such acquisitive transactions may include noncompete covenants or noncompetition agreements, consulting services agreements, and/or acquired goodwill. The structure of the subject company sale transaction has income tax implications that may affect the sale/purchase price of the distressed company. This discussion focuses on (1) several common transaction structuring issues and (2) the income tax implications for both the seller and the buyer of the distressed company.

Introduction

The sale of a financially distressed company may be the only option available to allow the company owners to generate sufficient liquidity to (1) pay the company's creditors and/or (2) prevent the entity's insolvency and possibly a bankruptcy proceeding.

Therefore, the sale of all (or a business unit) of the financially distressed company may be the last resort for owners of an entity operating in or near the zone of insolvency.

For the debtor-in-possession (DIP) of a company that is already involved in a bankruptcy proceeding, the sale of one or more of the debtor company business units may:

1. remove the underperforming business operations from the bankruptcy estate,
2. generate sufficient cash in order to fund the company's remaining profitable business operations, and
3. lead to a successfully restructured or reorganized debtor company.

Accordingly, the DIP sale of an underperforming business unit may help the remaining debtor company to improve its operating results—and ultimately to reorganize out of bankruptcy protection.

In all cases, the sellers of the financially distressed company (or of a subsidiary or other business unit of the distressed company) will have to consider if the proposed transaction should be structured as a sale of the company assets or a sale of the company stock.

This transaction structuring consideration has legal, accounting, and taxation implications. And, all three of these transaction structuring implications—but especially the income tax effects—can influence the ultimate transaction sale/purchase price.

Company Transaction Structuring Considerations

In general, the seller of a financially distressed company (whether a corporate seller or an individual seller) would prefer to sell the stock of the company. With the sale of the troubled company stock, most of the company's legal liabilities transfer from the seller to the buyer.

In addition, the financial accounting for the gain or loss on the sale of the company stock is typically

"With the purchase of the troubled company assets, most of the company's legal liabilities are retained by the seller (who still owns the company stock)."

less complex for the seller. And, assuming that the company stock was owned for more than one year, the seller typically recognizes a capital gain (instead of ordinary income) on the taxable sale of the troubled company stock.

On the other hand, the buyer of the distressed company (whether a corporate buyer or an individual buyer) would prefer to buy the company assets. With the purchase of the troubled company assets, most of the company's legal liabilities are retained by the seller (who still owns the company stock).

For financial accounting purposes, there are usually fewer contingent liabilities that may affect the buyer's purchase price allocation.

Furthermore, with the purchase of the troubled company assets, for federal income tax purposes, the buyer gets to "step up" the income tax basis in the acquired assets—versus having to record a "carryover" income tax basis in the acquired assets.

Of course, this income tax benefit to the asset buyer typically subjects any gain on the asset sale to ordinary income treatment—instead of capital gain treatment—to the asset seller.

In addition, there are other restructuring issues related to the sale of the stock of a financially distressed company. These issues should be considered by the legal counsel and the valuation analyst/financial adviser representing both the seller and the buyer. This is because these transaction structuring issues have both legal implications and valuation (i.e., transaction price) implications.

In the case of a debtor company in bankruptcy, these transaction structuring issues should be resolved through the process of the deal negotiations, presumably in the best interest of the bankruptcy estate. Once agreed upon, these transaction structure issues should be clearly articulated in the transaction closing document (whether that document is a stock sale agreement or an asset sale agreement).

Three Common Transaction Structuring Issues

Three transaction structuring issues commonly arise whether the owner is negotiating the sale either of the entire financially distressed business or of a business unit of the distressed company:

1. Noncompete covenants
2. Consulting agreements
3. Business goodwill

At first glance, the income tax treatment related to each of these transaction structure issues seems fairly straightforward. However, the specific wording of the subject stock or asset purchase agreement (or the lack of any such specific wording) can create either income tax opportunities or income tax problems.

The following discussion presents an overview of these three transaction structuring issues. This discussion also summarizes some of the areas for the transaction parties to consider when drafting the purchase/sale transaction agreements.

This discussion is intended to provide both the distressed-company seller and the distressed-company buyer with factors to consider so as to avoid some common transaction structuring pitfalls. The transaction parties should consult with their legal counsel and their tax advisers to obtain specific transaction structuring guidance.

First, the objective of a deal document noncompetition covenant (or a separate noncompetition agreement) is to protect the buyer's interest in the newly acquired business. The noncompetition agreement can be granted by either:

1. the individual seller of the distressed company or
2. the corporate seller of the distressed company.

The purpose of the noncompete covenant is to ensure that the distressed company seller (whether individual or corporate) does not:

1. reestablish itself in the same line of business in the same geographical area or
2. otherwise compete with the distressed company buyer (i.e., the new owner of the subject business).

Second, consulting agreements are created when the troubled company buyer intends to retain the expertise of the individual business seller for a period of time. With such an agreement, the individual seller will typically advise the troubled company buyer on operational and/or strategic matters during a specified transition period.

Alternatively, the troubled company buyer may wish to retain the services of the corporate business

seller for a period of time. In this case, a services provider agreement (often called a services agreement) is created when the troubled company buyer intends to retain the corporate seller to provide specified services during a specified transition period.

For instance, the buyer of the distressed business unit may need a DIP corporation seller to continue to provide financial accounting, research and development, data processing, regulatory compliance, and other "corporate" type services to the transferred business unit until the buyer company can develop its own expertise in such areas.

Third, for federal income tax purposes, goodwill is defined in Treasury regulation 1.197-2(b)(1) as "the value of a trade or business attributable to the expectancy of continued customer patronage. This expectancy may be due to the name or reputation of a trade or business or any other factor."

In a transaction that is the taxable purchase of the assets of a going-concern business, goodwill is considered to be an Internal Revenue Code Section 197 intangible asset. The buyer of the troubled company can amortize the amount of the transaction purchase price allocated to the acquired goodwill over a 15-year period.

However, in a stock purchase transaction, no amount of the troubled company transaction purchase price is typically allocated to goodwill. And, therefore, no income tax deduction is available to the troubled company buyer with regard to the amortization of the acquired goodwill.

Table 1 summarizes the federal income tax implications of these three transaction structuring issues to both (1) the distressed company seller and (2) the distressed company buyer.

Competing Economic Interests of the Company Buyer and the Company Seller

Under the current federal income tax rates, the distressed company seller (other than a C corporation) would typically prefer to allocate the sale price to any acquired goodwill (as opposed to a noncompete agreement or a consulting agreement).

With such a sale price allocation, the distressed company seller would benefit from capital gain tax treatment. This capital gain tax treatment assumes that the troubled company seller has owned the company stock for more than one year.

Even ignoring the income tax considerations, the troubled company buyer is likely to want to protect his (or its) investment by ensuring that the troubled company seller does not immediately compete with the transferred business. If the subject transaction is a stock sale and not an asset sale, then the troubled company buyer will not be able

Table 1
Federal Income Tax Implications of the Acquisition Transaction Structure

Distressed Company Sale and Purchase Transaction Structure Issue	Income Tax Considerations to the Distressed Company Seller	Income Tax Considerations to the Distressed Company Buyer
1. Noncompete covenant or noncompetition agreement	Ordinary income is recognized (but is not subject to self-employment tax if the troubled company seller is an individual)	The fair market value of the noncompete covenant intangible asset may be amortized over a statutory 15-year period
2. Personal consulting agreement or corporate services agreement	Ordinary income is recognized (but is subject to self-employment tax if the troubled company seller is an individual)	A current period income tax deduction is available to the buyer for the actual amounts paid to the sellers
3. Acquired goodwill	Capital gain is recognized (except if any amortization deductions have already been taken, which are then recaptured as ordinary income under Section 197(f)(7))	Goodwill is a capital asset that may be amortized over a statutory 15-year period in a taxable asset purchase (but goodwill may not be amortized in a nontaxable stock purchase)

"The noncompete covenant should also have provisions for breach of contract in the event that the business seller fails to comply with the terms of the noncompete covenant."

to amortize any purchase price premium as purchased goodwill.

In such a company sale structure, the buyer inherits the seller's carryover tax basis in the purchased company assets. Particularly in that scenario, the company buyer will want to allocate the transaction purchase price to an amortizable noncompete agreement—and away from the nonamortizable acquired company stock.

As mentioned above, the troubled company buyer may also want to retain the selling parent corporation's administrative services or the individual seller's personal services for a period of time. The company buyer has the greatest income tax preference to allocate the transaction purchase price to such a consulting agreement.

Such a purchase price allocation would result in a current income tax deduction to the company buyer. In contrast, any transaction purchase price that is allocated to the noncompete agreement will be amortized over a 15-year amortization period.

From an individual seller's perspective, an allocation to a noncompete agreement is generally preferable to an allocation to a consulting agreement from an income tax standpoint. This preference is because any payments made under a consulting agreement will be subject to self-employment tax.

Self-employment income, however, does afford the individual seller with the ability to establish a variety of tax-saving vehicles, including retirement plans and medical reimbursement plans. It is noteworthy that these tax-saving vehicles generally need to be established within certain time limits. And, such benefit-related plans cannot be established after the fact (i.e., after the subject business sale).

The Importance of Transaction Substance and Transaction Form

If both a noncompete covenant and a consulting agreement are contemplated in the company sale transaction, then it is particularly important that both substance and form actually exist to support the respective transaction agreements.

In order to support the fair market value assigned to the noncompete agreement, the subject transaction parties need to have competing economic interests. Furthermore, both the fair market value and the conditions of the noncompete agreement should be realistic.

For example, it may be difficult for the company buyer to argue that the individual seller will compete with the transferred company if the individual seller:

1. does not have the financial ability to compete,
2. is in poor health, or
3. retired immediately after the sale of the distressed business.

A classic example of a lack of competing economic interests is provided in the U.S. Tax Court judicial decision *Mackey's, Inc*.[1] In that case, the individual company seller retained a majority ownership interest in the company that was sold. The individual company seller also moved overseas within less than a month of signing the transaction sale documents.

The Tax Court concluded that the transaction noncompete covenant was invalid. This was because the noncompete covenant merely restricted the individual seller from competing against himself. The Tax Court also concluded that the individual seller's consulting agreement was invalid. The court reached this conclusion because the individual seller did not perform any services for the company buyer.

In the *Mackey's, Inc.*, decision, the Tax Court concluded that the following payments were disguised dividends to the individual seller:

1. The noncompete covenant payments
2. The consulting agreement fees

Any existing company agreements should also be reviewed to ensure that a potential conflict does not exist. For example, if a financially troubled fast-food restaurant franchise is being sold, the existing franchise agreement may prevent another franchise store from opening within a specified distance.

It would be difficult for the franchise buyer to argue the validity of the franchise seller's noncompete covenant if the distance specified in the noncompete covenant was less than the distance in the already-existing franchise agreement.

The noncompete covenant should also have provisions for breach of contract in the event that the business seller fails to comply with the terms of the

noncompete covenant. The Internal Revenue Service ("the Service") may argue that the lack of any breach of contract provision is indicative of disguised goodwill value instead of noncompete covenant value.

By its nature, a consulting agreement presupposes that the troubled company seller will perform some sort of consulting services for the troubled company buyer, so as to ensure an orderly ownership transition. In order to have substance, the company seller—as the consultant—will need to perform some actual and meaningful consulting services to the transferred company.

If both a noncompete covenant and a consulting agreement are included in the sale/purchase transaction structure, then it is important that they be different. That is, the two agreements should provide for specific payment allocations.

And, the two agreements should avoid any ambiguity so the Service does not recharacterize the noncompete agreement as a consulting agreement. This recharacterization would make the contractual payments to the company seller to be subject to self-employment tax.

The distressed company seller/buyer may want to obtain a purchase price allocation valuation report from an independent valuation analyst. Such an independent valuation report provides an allocation of the overall purchase consideration to the various transaction pieces. Such a valuation report can be a valuable document to support the transaction purchase price allocation.

The Internal Revenue Code anticipates the parties' incentive to shift a transaction purchase price allocation away from a noncompete covenant and toward a consulting agreement.

The legislative history of Internal Revenue Code Section 197 directs taxpayers that any contractual arrangement that "requires the former owner of an interest in a trade or business to continue to perform services (or to provide property or the use of property)" is considered to have substantially the same effect as a noncompete covenant where the amount paid to the business seller pursuant to such arrangement exceeds the amount that represents "reasonable compensation for the services actually rendered (or the property or use of property actually provided)."

Summary and Conclusion

When an individual owner or corporate owner of a financially troubled company decides to sell that company, the owner wants to receive the greatest amount of net sale proceeds, after considering the transaction income tax consequences. When an individual or corporation decides to buy the troubled company, the buyer wants to pay the lowest amount of net purchase price after considering the transaction income tax consequences.

"Both the substance and the form of the deal are important with respect to drafting the transaction documents related to the company sale."

The structure of the financially troubled company sale/purchase can have a direct impact on the transaction income tax ramifications and, therefore, on the transaction purchase price.

Of course, the deal participants should consult with legal counsel regarding the legal implications of the transaction structure. The deal participants should also consult with their financial advisers regarding the valuation implications of the transaction structure.

From the seller's perspective, the troubled company sale should allow the seller to pay creditors, avoid a bankruptcy filing, and have liquidity so as to nurture any remaining successful business units.

From the buyer's perspective, the troubled company purchase should allow the buyer to restructure the financially troubled company into a successful business enterprise and to earn a fair return on the acquisition investment.

Both the substance and the form of the deal are important with respect to drafting the transaction documents related to the company sale. For income tax purposes, both the Service and the courts will look beyond the written word to confirm that the parties' actions actually support the transaction agreements.

Where the parties' actions do not support the transaction agreements, the Service may recharacterize the transaction payments. Such an income tax recharacterization can materially change the economics of the financially troubled company sale/purchase transaction.

Note:

1. T.C. Memo. 1975-280.

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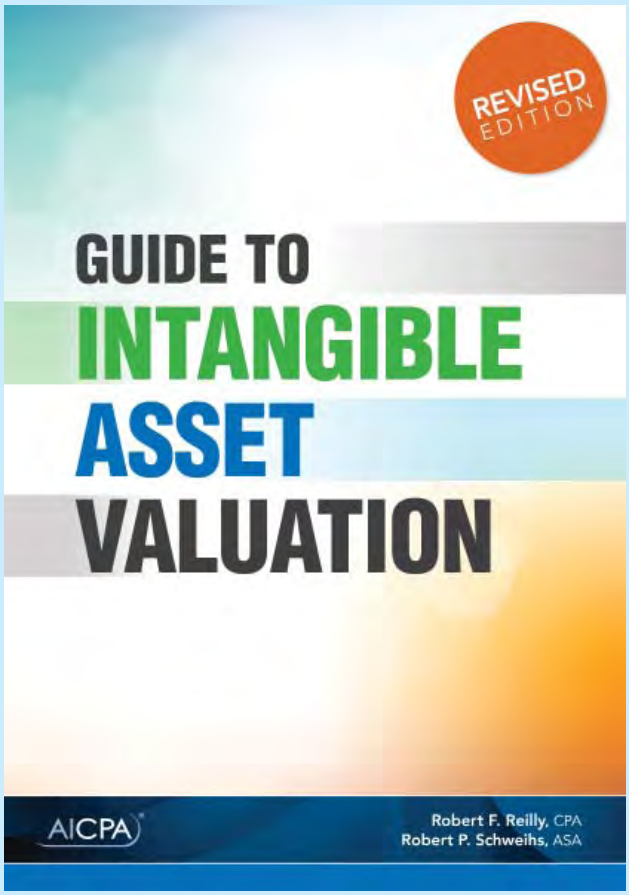
Guide to Intangible Asset Valuation

by Robert F. Reilly and Robert P. Schweihs



This 745-page book, originally published in 2013 by the American Institute of Certified Public Accountants, has been improved! The book, now in hardback, explores the disciplines of intangible asset valuation, economic damages, and transfer price analysis. *Guide to Intangible Asset Valuation* examines the economic attributes and the economic influences that create, monetize, and transfer the value of intangible assets.

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Guide to Intangible Asset Valuation

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Intangible Asset Valuations in Health Care Industry Transactions

Robert F. Reilly, CPA

Financial advisers routinely assist the various parties to a health care industry corporate transaction. Financial advisers assist clients in all four phases of the corporate transaction: (1) the due diligence pricing and structuring phase, (2) the corporate governance and regulatory compliance "financial opinion" phase, (3) the financial accounting phase, and (4) the post-deal regulatory challenge or shareholder litigation phase. The identification and valuation of the subject health care entities' intangible assets is an important component of the financial adviser's procedures in each of these four corporate transaction phases.

Introduction

Financial advisers are often asked to assist participants in health care industry merger and acquisition (M&A) transactions during four distinct transaction phases. This statement is particularly true if one of the transaction participants is a not-for-profit organization.

First, the financial adviser may be asked to assist with the pricing and structuring phase of the transaction. This phase may involve due diligence procedures, alternative transaction structure valuations, and security design analyses.

Second, the financial adviser may be asked to assist with the corporate governance and regulatory compliance phase of the transaction. This phase may include the adviser preparing a fairness opinion, a solvency opinion, a fair market valuation, a reasonably equivalent value opinion, or some other type of transaction opinion.

Third, the financial adviser may be asked to assist with the financial accounting aspects of the transaction.

And, fourth, the financial adviser may be asked to assist with any contrarian review, a regulatory challenge, or shareholder litigation related to the transaction. This phase may involve forensic analyses and expert witness testimony. Introduction

There are numerous reasons why an independent financial adviser may be asked to conduct a health care industry intangible asset valuation. Virtually all of these health care industry valuation and related analyses involve the identification and valuation of the health care entity intangible assets. This analysis is the topic of this discussion.

First, this discussion considers the types of intangible assets that are commonly found in the health care industry. And, this discussion identifies the types of health care entities that commonly own or operate these intangible assets.

Second, this discussion reviews the various types of intangible asset valuation analysis.

Third, this discussion summarizes the differences between a notational valuation and a transactional valuation, particularly with regard to health care intangible assets.

Fourth, this discussion lists the most common categories of reasons to conduct the valuation.

Fifth, this discussion describes many of the individual reasons to conduct the valuation.

Finally, this discussion summarizes who should perform the health care industry intangible asset valuation; and, this discussion considers whether that determination of the appropriate type of financial adviser is affected by the reason for the analysis.

There are many parties who may ask the financial adviser to value the health care intangible asset. Most commonly, such requests come from the intangible asset own or operator. As described below, the health care industry owner/operator may have various notational or transactional reasons to value the intangible asset.

The financial adviser may also serve the informational needs of other parties who will transact with the owner/operator, such as a potential buyer, licensee, creditor, partner or other investor, joint venturer, or contract counterparty.

In addition, financial advisers are often retained by legal counsel representing various parties in a dispute involving the health care intangible asset.

Often, the financial adviser will serve as an independent adviser to a client with respect to the intangible asset valuation (or other economic) analysis. However, the financial adviser may also be an employee of the health care owner/operator or of some other party interested in the intangible asset analysis.

Typically the qualitative and quantitative analysis will not be affected by whether the financial adviser is an independent adviser to a client or an employee working for an employer.

Of course, the informational needs of the various parties may be different. For example, the buyer or licensee client may be very interested in the development history of the intangible asset.

In contrast, the owner/operator employer does not need a refresher course in the development history of its own intangible asset. The employer may simply need an estimate of the intangible asset value for property taxation, insurance, strategic planning, or some other purpose.

Whether the financial adviser is an independent adviser or an employee, an important first step in the analysis is to learn the reason for the intangible asset valuation. Understanding this reason will help the financial adviser decide whether the client/employer really needs a value estimate—or some other economic metric related to the intangible asset.

Types of Health Care Intangible Assets

Exhibit 1 presents a nonexhaustive list of the types of intangible assets that are typically identified in health care industry valuations.

Types of Intangible Asset Valuation Analyses

Health care owner/operators (and other parties) often ask for an intangible asset valuation when they don't really need a valuation. Therefore, let's review the different types of intangible asset analyses. After considering this list, the financial adviser can provide the type of service that the client really needs.

Owner/operators, legal counsel, and other parties often refer to all of these types of economic analyses as "valuation":

1. Valuation – the estimate of a defined standard of value for the intangible asset; the valuation date can be retrospective (as of a historical date), contemporaneous (as of a current date), or prospective (as of a future date)
2. Evaluation – an assessment of the potential economic benefits of the intangible based on some (typically hypothetical) future

Exhibit 1
Common Health Care Industry Intangible Assets

- Medical, dental, and other professional licenses
- Certificates of need
- Patient relationships
- Patent files and records (manual and electronic)
- Electronic medical records computer software
- Medical and administrative assembled workforce
- Office systems, procedures, and manuals
- Position or "station" procedures and manuals
- Facility operating licenses and permits
- Physician (and other professional) employment agreements
- Physician (and other professional) noncompetition agreements
- Executive (and other administrator) employment agreements
- Executive (and other administrator) noncompetition agreements
- Administrative services agreements
- Medical (and other professional) services agreements
- Facility or function management agreements
- Equipment and other supplier purchase agreements
- Service marks and service names
- Joint venture agreements
- A professional's personal goodwill
- An entity's institutional goodwill
- Equipment use or license agreements
- Medical (other professional) staff privileges
- Joint development or promotion agreements

conditions; this analysis could project future revenue produced, services provided, royalty income generated, expenses saved, or some other economic benefit.

An intangible asset evaluation often involves a "what if" assessment of possible alternative use scenarios.

3. Economic damages – a measurement of the lost profits, lost value, royalty rate, or other damages measure suffered by the intangible asset owner/operator due to the wrongful actions of another party; the wrongful actions are typically a breach of contract or a tort.

   The economic damages are typically measured by a generally accepted damages measurement method, such as one of the "but for" methods, the with and without damages method, or the royalty rate method.

4. License royalty rate – an estimation of the arm's-length royalty rate that a licensee would pay to a licensor for a license to use the health care intangible asset.

   The license fee (typically expressed as a royalty rate) is market-derived in that it assumes independent parties entering into the license agreement; the royalty rate is typically a function of both (a) the economics of the subject intangible asset and (b) the terms and conditions of the subject license agreement.

5. Intercompany transfer price – a determination of the price related to a transfer of an intangible asset between controlled entities under common ownership.

   The transfer price is determined as a proxy for an arm's-length price that would be negotiated for the intangible asset transfer between unrelated parties; the intercompany transfer price is typically used for either (a) financial accounting purposes or (b) federal or state income tax accounting purposes.

6. Remaining useful life – an estimate of the remaining time period (i.e., the remaining useful life) over which the intangible asset will generate economic benefits to the owner/operator.

   This analysis often also encompasses the conclusion of a value decay rate or depreciation rate—that is, the expected rate of the decrease in intangible asset value over time; this life estimate is typically used for either (a) financial accounting purposes or (b) income tax accounting purposes.

The financial adviser may be asked to conclude any of these intangible asset economic metrics for either notational purposes or transactional purposes.

Types of Health Care Entities

Exhibit 2 presents a nonexhaustive list of health care industry participants. These entities are typically the owner/operators of the health care intangible assets listed in Exhibit 1.

Exhibit 2
Types of Health Care Entities That Own/Operate Intangible Assets

- Ambulatory care centers
- Ambulatory surgical centers
- Home health care agencies
- Urgent care centers/clinics
- Dialysis/other specialty clinics
- Primary care and specialty medical practices
- Primary care hospitals
- Specialty (e.g., psychiatric) hospitals
- MRI and other imaging centers
- Primary care and specialty dental practices

Notational Analyses versus Transactional Analyses

The financial adviser can perform the most intangible asset analyses for either notational purposes or transactional purposes. As explained below, the purpose of the analysis may or may not affect (1) the analytical approaches and methods used and (2) the analysis conclusion reached.

Nonetheless, the purpose of the analysis (as notational versus transactional) is typically a function of the reason to conduct the intangible asset valuation (or other analysis). And, the financial adviser should understand:

1. the reason for performing the analysis and
2. whether that reason is satisfied by a notational analysis or a transactional analysis.

It may be easier to describe transactional valuations first. In a transactional valuation (or related analysis), there is an actual intangible asset transfer pending. The transaction can be a sale (a transfer of all rights) or a license (a transfer of some rights). The transaction can be a secured financing (this

transaction also involves a transfer of some legal rights).

In a transactional valuation, there is typically (1) a transfer of cash or some other valuable consideration, (2) a transfer of some or all of the legal rights related to the intangible asset, and (3) a negotiation between two or more parties involved in the transaction. Fairness opinions, solvency opinions, and adequate consideration opinions are examples of transactional valuation opinions related to a health care intangible asset sale, license, or other transfer.

In contrast, a notational valuation (or related analysis), the health care intangible asset does not actually transfer. In a notational valuation, typically there is no (1) transfer of cash or other consideration, (2) transfer of some or all of the intangible asset legal rights, and (3) negotiation between independent parties.

Notational valuations are often performed for financial accounting, taxation planning and compliance, strategic planning, or regulatory compliance purposes. Of course, these purposes are all important. And, the notational valuation may affect the owner/operator financial statements, and it may affect the owner/operator income, gift, or estate, or property tax expense.

Similarly, the notational valuation may affect whether the health care owner/operator has complied with a not-for-profit entity regulation, a debt covenant, or a joint venture agreement. And, the notational valuation may affect the health care owner/operator's future plans for an initial public offering, a commercialization program, or a restructuring of corporate assets.

However, in the case of the notational valuation, either the intangible asset transaction is already completed or it is not yet contemplated. Usually, no cash changes hands. Or, if cash changes hands (e.g., to pay taxes), it doesn't involve the transfer of the intangible asset.

And, the owner/operator is typically negotiating with itself as to:

1. which foreign or domestic subsidiary should own the intangible asset and
2. what the intercompany royalty rate or other transfer price will be for the use of that intangible asset.

Litigation-related valuations fall into either category of transactional valuation or notational valuation. If the finder of fact's decision results in a transfer of ownership for the intangible asset, then the valuation could be considered transactional. If the finder of fact's decision results in a monetary damages award, then the valuation may be considered notational.

While a judicial award may result in monetary damages, the intangible asset ownership will not transfer between independently negotiating parties.

Categories of Reasons to Value Intangible Assets

Exhibit 3 presents some of the categories of reasons why a financial adviser may be asked to value a health care industry intangible asset. Many of the individual reasons will be described in the next section.

The list in Exhibit 3 is not intended to be comprehensive. Rather, this list is illustrative of the many reasons why a health care owner/operator, legal counsel, or other party may ask the financial adviser to value an intangible asset.

Individual Reasons to Value Health Care Intangible Assets

The first category of individual reasons relates to the health care intangible asset sale, license, or other transfer.

Depending on the circumstances, most intangible assets can be sold:

1. independently as individual assets,
2. separately from a health care entity but as part of a portfolio of two or more assets, or
3. collectively as part of the assets of a health care entity.

In any of these two circumstances, the financial adviser can be asked to estimate a defined standard of value for the to-be-transferred intangible assets. Alternatively, the financial adviser could be asked to opine on the fairness of the pending or completed sale transaction. That fairness opinion could encompass the price of the proposed transaction, the terms of the proposed transaction, or other transactional factors.

Financial advisers are sometimes asked to opine on the solvency of the old health care owner/operator after the intangible asset sale or other transfer. And, financial advisers are sometimes asked to opine on the solvency of the new health care owner/operator after the intangible asset purchase, particularly if the purchase is financed.

Exhibit 3, Page 1
Categories of Reasons to Value Health Care Intangible Assets

1. Transaction pricing and structuring
   - Pricing the arm's-length sale of an individual intangible asset or a portfolio of two or more intangible assets
   - Pricing the arm's-length license of an individual intangible asset or a portfolio of two or more intangible assets
   - Calculating an exchange ratio between two owners for two respective intangible asset portfolios
   - Measuring the equity allocations in a new health care entity or joint venture when one or more parties contribute intangible assets
   - Measuring the asset distributions in a liquidating health care entity or joint venture when one or more of the parties receive intangible assets
   - Pricing the transfer of an intangible asset between two wholly owned subsidiaries (or between two unequally owned subsidiaries) of a consolidated health care entity
2. Financing collateralization and securitization
   - Using an intangible asset as the collateral in either a cash flow-based or an asset-based debt financing
   - Arranging the sale/licenseback financing of a health care intangible asset
3. Taxation planning and compliance
   - Forming an intangible asset holding company and structuring the intercompany intangible asset license to the taxpayer's operating companies
   - Performing income tax basis purchase price allocations (among the acquired tangible assets and intangible assets) in a taxable health care entity acquisition (e.g., an Internal Revenue Code Section 1060 asset acquisition)
   - Quantifying the amortization deduction for a purchased intangible asset
   - Valuing intangible assets in the taxpayer corporation insolvency exemption (Section 108) related to cancellation of debt (COD) income recognition
   - Valuing corporation intangible assets related to built-in gain (BIG) tax deferral upon the health care entity election to convert from C corporation to S corporation
   - Supporting the charitable contribution deduction for a donated intangible asset
   - Estimating the arm's-length price (ALP) for the cross border transfer and use of a multinational health care corporation's intangible asset (Internal Revenue Code Section 482 compliance)
   - Complying with state and local ad valorem property taxation of either taxable or tax exempt intangible assets
   - Defending against IRS allegations of private inurement, excess benefits, or intermediate sanctions with regard to intangible asset transfers between a for-profit entity and a not-for-profit entity
4. Regulatory compliance and corporate governance
   - Estimating the fair market value estimation of the intangible asset sale, license, or other transfer between a for-profit entity and a not-for-profit entity
   - Performing the fair market value (asset-based approach) valuation of a going concern health care entity to be sold between a for-profit entity and a not-for-profit entity)
   - Documenting the custodial inventory and management of owned and licensed intangible assets
   - Assessing the adequate insurance coverage for owned and licensed intangible assets
   - Defending against infringement, misappropriation, diversion, other torts, breach of contract, and other wrongful acts to intangible assets
   - Defending against allegations of dissipation of health care entity assets

Exhibit 3, Page 2
Categories of Reasons to Value Health Care Intangible Assets

5. Bankruptcy and reorganization
   - Valuing an intangible asset that is pledged as collateral for secured creditor financing
   - Using an intangible asset as collateral for debtor in possession (DIP) secured financing
   - Opining on the fairness (to creditors) of the sale or license of an intangible asset as a DIP cash generation spinoff opportunity
   - Valuing an intangible asset in the performance of the debtor corporation solvency or insolvency tests (particularly the balance sheet test) with respect to fraudulent transfer claims and preference actions
   - Measuring the impact of the intangible assets on the plan of reorganization of the bankrupt owner/operator
6. Financial accounting and fair value reporting
   - Preparing the acquisition accounting (i.e., transaction purchase price) allocation among acquired tangible assets and intangible assets
   - Testing for goodwill impairment and for other intangible asset impairment
   - Preparing the post-bankruptcy fresh start accounting for the emerging entity tangible assets and intangible assets of a health care entity emerging from bankruptcy
7. Forensic analysis and dispute resolution
   - Calculating an intangible asset lost profits, reasonable royalty rate, or other economic damages analysis in infringement or other tort claims
   - Measuring intangible asset lost profits or other economic damages in breach of contract, license, or noncompete/nondisclosure agreement damages claims
   - Estimating intangible asset valuation in condemnation, expropriation, eminent domain, or dissipation of corporate assets claims
8. Strategic planning and management information
   - Forming an intangible asset joint venture agreement, joint development agreement, or joint commercialization agreement
   - Negotiating an inbound or outbound intangible asset use, development, commercialization, or exploitation agreement
   - Identifying and negotiating of intangible asset license, spin-off, joint venture, and other commercialization opportunities

Intangible assets may transfer between for-profit entities and not-for-profit entities. Such transfers occur regularly in the health care industry. They also occur in education, charitable institution, museum and cultural institution, and other not-for-profit industries. In such instances, the intangible assets could be transferred individually, or they could be transferred as part of a going-concern business.

To comply with regulatory requirements related to private inurement and excess benefits, the financial adviser may be asked to prepare a fair market value valuation. In order to give assurance to the transaction participants, the fair market value valuation will have to conclude that the not-for-profit buyer did not pay more than fair market value for the intangible asset and the not-for-profit seller did not receive less than fair market value for the intangible asset.

The above-mentioned transactional fairness opinions and fair market value valuations apply to license transactions, as well as to sale transactions. In transactions where there are no taxation compliance considerations, one or more license transaction participants may want the financial adviser's assurance that the license is fair to the licensor, the licensee, or some other specified party.

Sometimes, the health care owner/operator (or the associated board of directors) wants the fairness opinion assurance. Sometimes, a minority stockholder, a partner, a joint venturer, or some other party wants the fairness opinion assurance.

Intangible assets are often transferred in the formation of a new health care entity and in the asset distribution of a dissolving health care entity. In the multi-investor formation of a new business, it is not uncommon for one investor to contribute

cash, another investor to contribute tangible assets, and another investor to contribute intangible assets.

This scenario is particularly common when the new business is structured as a partnership or joint venture. Of course, it is easy to value the one investor's cash investment. It is more challenging to value the next investor's contributed tangible assets. And, a financial adviser may be asked to value the final investor's contributed intangible assets.

The valuation of the health care entity contributed asses is needed for two reasons. First, the investors need to know their income tax basis in their equity interest (whether partnership units, member units, joint venture ownership percentage, etc.). Second, the investors need to know their relative equity ownership. That relative equity ownership is typically based on the asset contributions.

So, let's assume that part A contributes $2,000,000 of cash, partner B contributes $3,000,000 of real estate and equipment, and partner C contributes $5,000,000 of intangible assets. Absent some contrary contractual agreement, one would expect the equity allocation to be 20 percent, 30 percent, and 50 percent to A, B, and C, respectively.

Likewise, intangible assets are often distributed in the dissolution of the health care entity. Such distributions happen in both voluntary and involuntary dissolutions. And, such distributions may be planned (e.g., a joint venture that reaches its 10-year agreement term) or unplanned (e.g., the winding down of a financially troubled health care entity.

Let's continue with the previous illustration. Let's assume that a 10-year term joint venture between A, B, and C runs its course. At the end of 10 years, let's assume there is no cash left, the tangible assets have depreciated down to $1,000,000 in value, and the intangible assets are now valued at $4,000,000. That $4,000,000 intangible asset value would be provided by the financial adviser.

In this dissolution example, there are $5,000,000 of total assets to distribute. Based on the above-described equity allocation, the joint venture assets would be distributed based on the following values:

Owner	Distribution
A	$1,000,000
B	1,500,000
C	2,500,000
Total	$5,000,000

In order to achieve this asset allocation, all of the remaining assets could be sold for cash. Then, the cash could be distributed to the joint venturers. Or, if the intangible asset portfolio could be subdivided, then some of the patents could be distributed to A, some of the intangible assets could be distributed to B, and the remaining intangible asset portfolio could be returned to C.

Such an allocation would require a valuation of the component intangible assets. And, most likely, A and B would enter into use license agreements with C. In those agreements, C would pay A and B royalty payments that would equal (on a present value basis) their asset allocations. And, the ownership of the intangible assets would revert to C at the end of the license term.

Again, the financial adviser would be instrumental in designing such a license agreement, including the selection of the royalty payment and the license term.

For legal, accounting, and operational reasons, the intangible asset owner/operator may transfer intangible assets between controlled entities (e.g., between wholly owned subsidiaries of a parent corporation). Even though (and, arguably, because) there are no independent parties involved, the financial adviser may be asked to value the intercompany intangible asset transfer.

Depending on the structure of the transaction, there may or may not be taxation or accounting implications to the intercompany transfer. Certainly, the parent company would want to keep track of what controlled entity owns what corporate asset (whether it is tangible or intangible).

The above-described intercompany transfer becomes particularly noteworthy when the intangible asset is transferred between a wholly owned subsidiary and a less than wholly owned subsidiary. In such an instance, the minority equity investor wants to ensure that the intangible asset transfers are occurring at a fair, arm's-length price.

In addition, the minority investor wants to ensure that any intercompany intangible asset licenses (and license fees) are set at fair, arm's-length prices.

The second category of individual reasons relate to intangible asset-related financing transactions.

Intangible assets are sometimes used as collateral to allow the health care owner/operator to obtain financing. This collateral pledge occurs when there is a more active secondary market for the subject intangible asset. In such a case, the creditor can feel more comfortable about accepting the intangible asset as debt collateral. An example of such relatively liquid intangible assets are drug formula patents and FDA approvals in the pharmaceuticals industry.

This type of collateral pledge also occurs when the debtor has no other assets to pledge as collateral. Let's consider the case where the debtor entity has already pledged its inventory, receivables, real estate, and equipment as prior loan collateral. The creditor may accept certain intangible assets as

collateral, because there are no other unencumbered collateral assets available.

Health care owner/operators may also enter into intangible asset sale/licenseback transactions as a form of structured financing. Such sale/licenseback transactions are most common with intellectual property.

When the intangible asset serves as debt collateral, the health care owner/operator is repaying principal and interest to the financial institution. The intangible asset title does not change hands, unless the debtor defaults and the creditor has to foreclose on the collateral property.

When the intangible asset is subject to a sale/license agreement, the intangible asset title passes from the owner/operator to the licensor. The prior owner/operator becomes a licensee.

The licensee pays license fees or royalties to the licensor. At the end of the license term, the intangible asset title typically reverts back to the owner/operator.

For both of the above-described financing transactions, the financial adviser may be asked to estimate a defined value for the subject intangible asset as of a current date—that is, the inception of the financing agreement.

The financial adviser may also be asked to predict a defined value for the health care intangible asset as of a future date—that is, the terminus of the financing agreement.

The third category of individual reasons relate to taxation planning and compliance. Within this category, the subcategories of individual reasons include income tax, gift and estate tax, and property tax.

With regard to federal income taxation, there are numerous individual reasons to value intangible assets. Perhaps the most common income tax reasons relate to business acquisition purchase price allocations. In this situation, a target health care entity is purchased by an acquiror business.

A total purchase price is paid for the target health care entity. And, the total purchase price has to be allocated among all of the acquired assets. The most common purchase price allocation situations include the following:

1. A cash for assets type of acquisition, where the acquisitive transaction is accounted for under Section 1060
2. A cash for stock type of acquisition, where the acquisitive transaction is accounted for by the election of a deemed liquidation under Section 338(h)(10)

In both of these instances, the acquired assets typically include Section 197 intangible assets. In both of these instances, there is a priority of the purchase price allocation among the categories of acquired assets.

And, in both of these instances, the asset categories include the following:

1. Identifiable intangible assets (as the penultimate category)
2. Goodwill and going-concern value (as the last category)

Another common income tax reason relates to the transfer of intangible assets between domestic and foreign subsidiaries of a multinational corporation. The income tax implications of such international transfers are primarily controlled by the Section 482 regulations.

There are two types of intercompany transactions regarding multinational health care entity intangible assets.

First, such transactions may involve the transfer of the fee simple interest ownership between commonly controlled subsidiaries. The transfer can be from a U.S. subsidiary to a foreign subsidiary, or vice versa.

This type of intercompany transaction requires the financial adviser to estimate the fair market value of the transferred intangible asset as of the transfer date. The purpose for the valuation is to determine:

1. the tax basis of the intangible asset to the transferee entity and
2. any gain or loss related to the asset transfer.

Second, such transactions may involve the intercompany license of the transferred intangible asset between commonly controlled subsidiaries. The transaction could be a use license between the foreign subsidiary licensor and domestic subsidiary licensee.

In that case, the license royalty payment will be from the U.S. subsidiary to the foreign subsidiary, and the multinational taxpayer's U.S. taxable income would decrease.

Or, the transaction could be a use license between the U.S. subsidiary licensor and the foreign subsidiary licensee. In that case, the license royalty payment will be from the foreign subsidiary to the U.S. subsidiary, and the multinational taxpayer's U.S. taxable income will increase.

This type of intercompany transfer requires the financial adviser to estimate a fair arm's-length price for the intercompany use license. This arm's-length price should be concluded in compliance with the

specific intercompany transfer price measurement methods allowed in the Section 482 regulations.

There are other reasons to value health care intangible assets for federal income tax purposes. A financial adviser may be asked to estimate the fair market value of an intangible asset that is the subject of a charitable contribution. An owner/operator may need a valuation of a health care entity's intangible assets to help support a worthless stock deduction.

The taxpayer may also need a valuation of a health care entity's intangible assets in order to support a conclusion that the entity was insolvent. Such an insolvency finding can be used to offset the recognition of cancellation of indebtedness income.

Another common reason to value intangible assets relates to a health care entity's conversion from C corporation status to S corporation status. At the date of the conversion, the health care entity will need a valuation of all of its tangible assets and intangible assets.

Such a valuation is used to measure the amount of built-in gain (BIG) related to each of the corporation's assets. The conversion corporation can avoid the payment of tax on the BIG if the health care entity owns the assets for ten years after the date of the tax status conversion.

In addition to federal income tax, there are state income tax reasons to value health care intangible assets. Many multistate corporations have created intellectual property holding companies. Using such a structure, the parent corporation transfers its intellectual property to a subsidiary. That subsidiary has the responsibility to hold, protect, develop, and commercialize the parent's intellectual property.

As part of its function, the holding company may license the corporation's intellectual property to third-party licensees. The holding company may also license the corporation's intellectual property to other parent corporation units that operate in other states.

Effectively, the corporation operating units pay an intercompany license royalty payment to the intellectual property holding company subsidiary. That holding company subsidiary is domiciled in a state where such royalty income is exempt from state income tax.

So, the operating business units claim a tax deduction for the license payment expense in the states in which they operate. And, the intellectual property holding company does not pay income tax on the license income. Therefore, the parent corporation may recognize a decrease in its overall state income tax expense.

First, as part of the above-described intercompany intellectual property transfer, the corporate taxpayer will need a valuation of the intangible assets that are transferred from the parent corporation to the intellectual property holding company.

Second, the holding company will need an analysis of the fair arm's-length price that it should charge to the corporation's operating units for the use of the intangible assets.

In addition to income tax, health care intangible assets may have to be valued for transfer tax reasons, specifically gift tax and estate tax. Decedent-owned intangible assets (including professional licenses) are included in the decedent's taxable estate. The appropriate standard of value is fair market value.

In addition, the decedent may own a closely held health care entity or a professional practice. In that case, the value of intangible assets could be the principal component of the value of the closely held health care business or professional practice.

The fourth category of individual reasons to value a health care intangible asset relates to regulatory compliance and corporate governance. Health care intangible asset sale or license transactions between for-profit entities and not-for-profit entities were discussed above.

When the transaction relates to health care industry entities, industry regulatory issues (in addition to taxation regulatory issues) provide a reason for the intangible asset valuation.

Related to health care industry transactions, the parties must comply with the Anti-kickback statutes, the Stark statutes, and various Office of Inspector General and State Attorney General regulations.

The health care intangible asset valuation can document compliance with the appropriate statutory authority and administrative rulings. Such a valuation may be important whether the health care industry transaction relates solely to transferred intangible assets or to intangible assets as a component of a transferred business enterprise.

Corporate officers and directors sometimes face allegations of breach of fiduciary duty, misappropriation, gross negligence, dissipation of corporate assets, and similar claims.

Depending on the specific claims, an intangible asset valuation may help to prove or disprove such allegations. A valuation that demonstrates corporate investment, development, protection, commercialization, and appreciation of the company intangible assets may help defeat allegations against officers and directors.

On the other hand, a valuation that documents a company's lack of investment and development, inadequate protection, no commercialization efforts, and depreciation of the health care intangible assets

may provide evidence of dissipation of corporate assets or other related allegations.

The fifth category of reasons to value a health care intangible asset relates to bankruptcy and reorganization proceedings. As mentioned above, the debtor company's intangible assets are sometimes pledged as collateral:

1. for secured financing in the normal course of business or
2. for debtor in possession (DIP) financing.

The identification and valuation of intangible assets is often an important component of the solvency (or insolvency) conclusion regarding the debtor company. Such a conclusion is an important consideration in the bankruptcy issues related to:

1. fraudulent conveyance claims and
2. preference payment claims.

Intangible assets often provide a source of cash flow generation for the DIP. Even if they were not actively involved in intangible asset commercialization activities previously, DIP companies can enter into intangible asset sale or license transactions.

The DIP can sell (and possibly license back) an intangible asset that has a greater value to the market than it does to the DIP. In addition, the DIP can license certain intangible assets (particularly intellectual property) to noncompetitor licensees, generating license income in the process.

In addition, intangible asset ownership, protection, and commercialization are often important components of the DIP company's proposed plan of reorganization. An intangible asset valuation can be used by the DIP, creditors, and other parties to the bankruptcy to support and/or challenge the proposed plan of reorganization.

The sixth category of reasons to value a health care intangible asset relates to financial accounting and fair value reporting. The Financial Accounting Standards Board (FASB) promulgates U.S. generally accepted accounting principles (GAAP).

GAAP is codified in the FASB Accounting Standards Codification (ASC). Several of the ASC topics relate to the fair value valuation of intangible assets.

ASC 820 relates to fair value measurements and disclosures. ASC 820 provides the fair value definition, the fair value measurement hierarchy, and other measurement and disclosure guidance related to both tangible assets and intangible assets (and to liabilities, as well).

ASC 805 relates to the acquisition accounting with respect to business combinations. The ASC 805 guidance relates to the fair value valuation of both acquired assets (including identifiable intangible assets) and liabilities.

ASC 350 relates to the tests for goodwill impairment. ASC 350 provides guidance for:

1. the test for determining whether recorded goodwill should be impaired and
2. how the goodwill impairment (if required) should be measured.

ASC 360 relates to the test for impairment related to other long-lived assets (including long-lived intangible assets). ASC 360 provides guidance related to:

1. the test for determining whether a recorded long-lived asset should be impaired and
2. how the long-lived asset impairment (if required) should be measured.

ASC 852 relates to accounting for corporate reorganizations. This ASC topic addresses the accounting and financial statement disclosure of a debtor company that emerges from chapter 11 bankruptcy protection.

In certain specified circumstances, such reorganized entities will adopt fresh-start reporting upon their emergence from chapter 11. Such fresh-start reporting includes the fair value valuation of the reorganized entity's assets (including intangible assets) and liabilities.

The seventh category of reasons to value a health care intangible asset relates to forensic analysis, litigation claims, and dispute resolution. Litigation claims involving intangible assets generally fall into two categories: (1) breach of contract and (2) torts.

Of course, a breach of contract claim requires that there be some type of contractual relationship between the parties. In a tort claim, there is no contract between the parties. Rather, one party owes a duty to the other party. And, the allegation is that the first party violated that duty.

Common examples of breach of contract claims include alleged violations of an intangible asset purchase or other transfer agreement, use license agreement, development agreement, commercialization agreement, or joint venture agreement.

Common examples of tort claims include breach of fiduciary responsibility, infringement, eminent domain and expropriation actions, interference with business opportunity, fraud and misrepresentation, slander, and libel.

For each of these types of litigation claims, there are generally accepted methods and procedures

"Different professionals have different skills and different credentials that may make them more or less suitable. . . ."

for measuring the economic damages suffered by the aggrieved party. These economic damages methods and procedures fall into three measurement categories:

1. Measurement of owner/operator lost profits related to the wrongful acts
2. Measurement of a fair royalty rate to compensate the intangible asset owner/operator for the wrongful acts
3. Measurement of a decrease in the intangible asset value due to the wrongful acts

The eighth category of reasons to value a health care intangible asset relates to strategic planning and management information. These reasons generally relate to the question: How can the owner/operator benefit in the future from the intangible asset use (or forbearance of use)?

The first reason in this category relates to the control of the owner/operator's intangible asset. The owner/operator can use the valuation to inventory and to centralize internal control procedures related to the entity's intangible assets.

The second reason relates to the protection of the owner/operator's intangible asset. The owner/operator can use the valuation:

1. to assess the adequacy of the entity's insurance on its intangible assets and
2. to document ownership and value of intangible assets in order to prosecute infringement and other damages claims.

The other reasons in this category generally relate to intangible asset commercialization opportunities Based on the intangible asset valuation, the owner/operator could investigate and enter into license agreements, technology-sharing agreements, joint development agreements, joint commercialization agreements, and joint venture agreements.

The owner/operator could develop and implement nondisclosure and noncompetition agreements. And, the owner/operator could explore cash-generating intangible assets and other opportunities.

Who Is the Appropriate Intangible Asset Valuation Analyst?

There are many categories of professionals who perform health care intangible asset valuation (and related) analyses. Each of these categories of professional has certain pros and cons related to who is best qualified to perform the valuation analysis.

To some extent, the selection of the type of valuation professional is a function of the owner/operator's reason to conduct the intangible asset valuation. The various categories of intangible asset valuation analysts include (1) academics, (2) economists, (3) industry consultants, (4) licensing executives, (5) accountants, and (6) appraisers.

Each of these professionals brings certain experience and expertise to the valuation assignment. Each of these professionals can conclude a quantitative value (or damages, transfer price, etc.) conclusion. An important consideration for the owner/operator is: What other advice or service is desired in addition to the quantitative conclusion?

The health care owner/operator may want to answer that question in consultation with other professional advisers who may be involved with the intangible asset valuation reason (e.g., legal counsel, tax adviser, auditor, banker, etc.).

In addition to reporting the intangible asset value conclusion, the health care owner/operator may want the selected analyst to assist with the following tasks:

1. Preparing an offering document or other sales memorandum to begin the process of selling the intangible asset
2. Negotiating the terms of a license or other commercialization agreement
3. Identifying licensor or licensee candidates for a potential agreement
4. Advising with regard to the financial accounting for an intangible asset transaction
5. Advising with regard to the tax aspects for an intangible asset transaction
6. Advising the owner/operator on how to optimize the use of its intangible assets
7. preparing the intangible asset components of a bankruptcy plan of reorganization
8. Finding an interested financing source
9. Appearing before a government regulatory authority
10. Providing an expert witness report and courtroom expert testimony

Different professionals have different skills and different credentials that may make them more or less suitable for each of the above-mentioned tasks. In such instances, the owner/operator should decide what skills or credentials are needed—in addition to the ability to conclude an intangible asset value.

That is, for the specific assignment, the owner/operator may need a financial adviser who is also a PhD, a CPA, a tax expert, a health care industry expert, an experienced license negotiator, a licensed appraiser, and so forth.

In selecting the type of professional who is best suited for a particular assignment, the health care owner/operator (perhaps in consultation with legal counsel) should think through the intended purpose of—and the intended audience for—the intangible asset valuation.

Based on these considerations, the owner/operator can decide if the appropriate professional needs sale/license negotiation expertise, banking connections, health care industry experience, accounting and auditing credentials, expert testimony experience, and so forth.

In this selection process, the health care owner/operator should realize that some categories of analyst subscribe to codified professional standards and other categories of analyst may subscribe to more informal (or no) professional standards.

Some categories of analyst have achieved professional credentials; these credentials are typically earned through education, examination, compliance with codes of ethics, and adherence to published professional standards.

Other categories of analyst do not have professional organization credentials. This fact does not make these individuals any less "professional." Such individuals may have perfectly adequate experience and expertise.

The owner/operator has to decide if a certain set of professional credentials is important to the subject valuation assignment.

Summary

Financial advisers are often asked to assist participants in health care industry merger and acquisition (M&A) transactions during four distinct transaction phases. This statement is particularly true if one of the transaction participants is a not-for-profit organization.

First, the financial adviser may be asked to assist with the pricing and structuring phase of the transaction. This phase may involve due diligence procedures, alternative transaction structure valuations, and security design analyses.

Second, the financial adviser may be asked to assist with the corporate governance and regulatory compliance phase of the transaction. This phase may include the adviser preparing a fairness opinion, a solvency opinion, a fair market valuation, a reasonably equivalent value opinion, or some other type of transaction opinion.

Third, the financial adviser may be asked to assist with the financial accounting aspects of the transaction.

And, fourth, the financial adviser may be asked to assist with any contrarian review, a regulatory challenge, or shareholder litigation related to the transaction. This phase may involve forensic analyses and expert witness testimony.

There are numerous individual reasons for a financial adviser to conduct a health care intangible asset valuation. This discussion summarized many of these reasons and considered the common categories of these individual reasons.

Understanding the reason for the intangible asset analysis is an important prerequisite to conducting the valuation, both for the financial adviser and the health care owner/operator. This is because an intangible asset valuation may not be the type of analysis that the owner/operator really needs.

Rather, the owner/operator may really need an economic damages measurement, a license royalty rate analysis, an intercompany transfer price study, a commercialization potential evaluation, or some other type of intangible asset analysis.

In addition, a clear definition of the reason for the valuation or analysis will allow the financial adviser to understand if (1) any specific analytical guidelines, procedures, or regulations apply and (2) any specific reporting requirement applies.

For example, intangible asset valuations prepared for fair value accounting purposes should meet specific ASC topic 820 fair value accounting guidance.

Intangible asset valuations performed for intercompany transfer price tax purposes should comply with the guidance provided in the Section 482 regulations.

Likewise, intangible asset valuations prepared for Section 170 charitable contribution purposes should comply with specific reporting requirements.

The individual reasons for the health care intangible asset valuation may influence the standard of value applied, the valuation date selected, the valuation approaches and methods applied, the form and format of valuation report prepared, and even the type of professional employed to perform the health care valuation.

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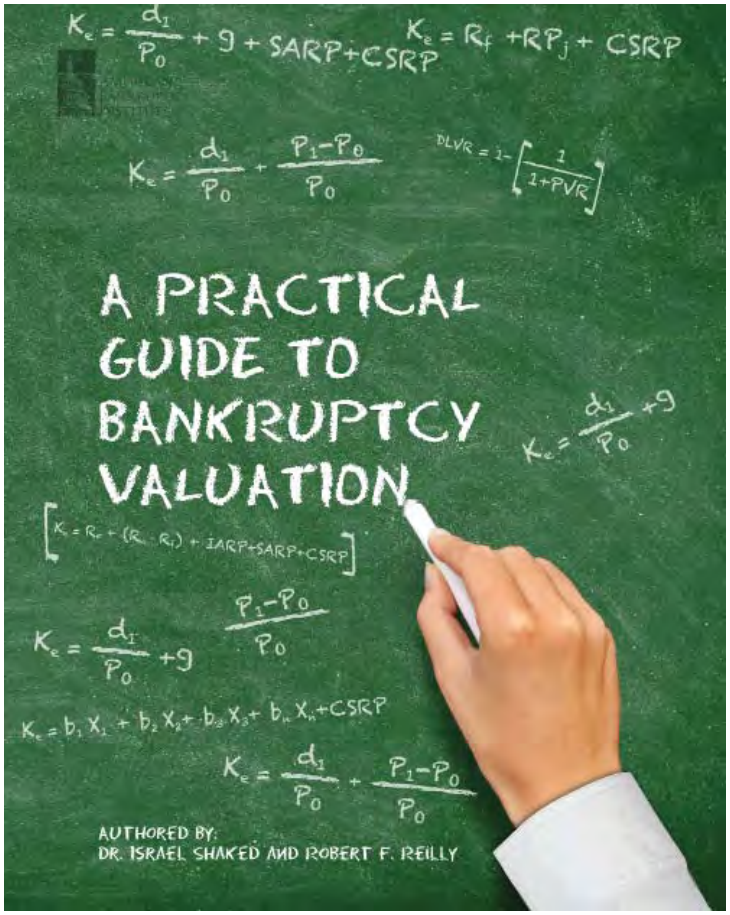

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A PRACTICAL GUIDE TO BANKRUPTCY VALUATION

Dr. Israel Shaked and Robert F. Reilly

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Virtual Currency, Real Tax: Taxation and Valuation Issues Related to Emerging Digital Payment Systems

John E. Elmore, JD, CPA

This discussion summarizes how the future of digital payment systems is being realized today and how this progress affects both financial accounting and income tax accounting. First, this discussion defines and explores concepts such as digital payment systems and virtual currencies. Second, this discussion examines the implications of the emerging digital payment systems from both a taxation and a valuation perspective.

Introduction

The Onion posted a satirical story not long ago with the headline: "U.S. Economy Grinds to a Halt as Nation Realizes Money Just a Symbolic, Mutually Shared Illusion." That article humorously described dumbstruck citizens reacting to then Federal Reserve Chairman Ben Bernanke's remarks that modern money is just a meaningless and intangible social construct.[1]

Money is an illusion of sorts, but it works because we trust it. Our laws and governmental backstops have conditioned us to accept the notion of the U.S. currency with confidence. We even trust the U.S. currency when it's just a number in a computer somewhere.

We became reliant on symbolic, "digitized" currency a long time ago with the advent of electronic funds transfers and credit cards. Nonetheless, it is fashionable to speak of the "digital economy" as a recent phenomenon.

This "digital economy" assumes that typing in a credit card number to purchase shoes online from Zappos is fundamentally different than presenting the credit card to a clerk in a brick-and-mortar store.

But payment systems really haven't changed much in decades. Credit cards, debit cards, gift cards, and the like, are all just account numbers embodied in plastic. Payment transactions have remained more or less the same—until now.

The emergence of new payment technologies such as Apple Pay and Bitcoin signals a transformation taking place in payment processing that raises a number of taxation and valuation issues.

Digital Payment Systems

A digital payment system can be defined simply as a system by which money is transferred from one account to another electronically, such as payments for goods and services.

It may be instructive to examine how the credit card payment system works before venturing further into a discussion of emerging digital payment systems.

The conventional credit card payment system typically involves four parties:

1. The merchant offering goods and services
2. The card issuer administering a credit or debit account
3. The merchant acquiror recruiting merchants
4. The service provider, such as VISA or MasterCard, relaying transaction information to the proper card issuer for processing[2]

When a consumer makes a purchase, two major processes occur:

1. The credit card transaction is authorized
2. The transaction is then cleared

In authorizing a transaction, a point-of-sale terminal or computer sends the merchant's identification number, the card information (including a primary account number), and the purchase amount to the service provider. The service provider then requests an authorization for the transaction from the card issuer. The merchant acquiror receives the response and relays it to the merchant.

Once the transaction is authorized, it is cleared. The merchant sends transaction information to the acquiror. The information is passed along through a clearinghouse to process transactions between participating depository institutions. Through this clearinghouse, the merchant's account is credited with the amount of the transaction less a transaction fee amounting to about 2 to 5 percent of the purchase amount.

The selection of which credit card to use for a transaction is made by the consumer. This selection may entail physically reaching into a wallet and pulling out a plastic card.

Modern payment systems have translated this paradigm to digital form. PayPal was one of the first such digital payment systems to implement the wallet approach. It allowed a participant to create a PayPal account—effectively, a digital wallet—through the PayPal website.

The PayPal account held account numbers and other information for one or more credit cards and banks associated with the participant. Using this digital wallet, participants could access credit or funds from any of the accounts to send it to others or pay for goods and services.

Google Wallet extended the digital wallet idea to the smartphone, making payments from a digital wallet more accessible and convenient. Using an app, the smartphone owner would select which credit card to use from the wallet and hold the smartphone near an appropriate contactless reader device at a merchant location.

However, few card issuers enrolled in the system, which severely limited its adoption with consumers. One of the concerns with Google Wallet was that it stored the participant's credit card information in the smartphone, making it vulnerable to theft.

Apple Pay aims to overcome the deficiencies that have hobbled Google's payment system. While it also employs the participant's smartphone, it does not store the participant's sensitive credit card information in the smartphone itself.

It relies instead on the use of "tokens" to represent each credit card account number and expiry

date—or any other account information—held in the digital wallet. These tokens are passed to the merchant in lieu of sensitive credit card information. Ultimately, the tokens are used by the issuer to access the appropriate credit card account.

The transaction is otherwise processed in the conventional manner. The token itself is a randomly generated number that is meaningless to a smartphone thief and cannot be used apart from the smartphone to perform transactions. Due in part to this and other security improvements, such as fingerprint authentication, Apple Pay has been widely embraced by merchants and card issuers.

Until now, digital payment systems have focused on extending the utility of conventional payment methods like credit cards. But certain features of Apple Pay hint at a future that incorporates the use of unconventional forms of money as well. For example, one of Apple's recent patent applications discloses a digital wallet that uses "vouchers, coupons, or mobile credits" to pay for goods and services in addition to conventional credit cards and debit cards.[3]

These additional forms of digital money are known as virtual currency, which we will explore shortly.

Castronova (2014) labels this emerging approach a "digital value transfer system (DVT)."[4] What is most interesting about the DVT concept is consideration of the wallet as more than a mere container of different virtual currencies.

The wallet also facilitates the exchange of these virtual currencies into a transactional real-world value, including combining the use of multiple virtual currencies to achieve the required purchase amount. When a consumer buys something, the wallet acts to transfer purchasing power from him or her to the seller using one, some, or all of the available virtual currencies.

Using the example of purchasing a car, Castronova explains:

> Much of this is invisible to the buyer and seller. The seller states a price in terms of one currency. The buyer indicates a desire to buy. The DVT figures out a package of value equivalent to the stated price and transfers it to the seller. It may require nothing more than a single tap on the buyer's smartphone to send the value to the seller. The buyer does not need to know that the he bought the [car] using a combination of dollars, yen, US Airways frequent flyer miles, VISA Reward Points, and Indiana University Basketball Seating Priority Points. Neither does the seller. The DVT makes sure that the combined portfolio of monies adds up, at current exchange rates, to the stated price of the car.[5]

This use of virtual currencies for a transaction, as discussed below, can have taxation consequences. But before this discussion continues, it may be helpful to better define the concept of virtual currency.

What Is Virtual Currency?

According to the U.S. Department of Treasury, virtual currency is a medium of exchange that operates like a currency in some environments, but does not have all the attributes of real currency.[6] Notably lacking is its status as legal tender. In the United States, the National Banking Acts of 1863 and 1864 restricted legal tender to U.S. Notes, Federal Reserve Notes, and coins minted by the U.S. Mint.[7]

Nevertheless, virtual currency can act as a substitute for real currency and can be exchanged for real currency. This latter characteristic is important to our later discussion on tax implications.

Many virtual currencies have been created and more are invented as time passes. The concept is not new. There are many things that can act as a substitute for real currency. The earliest instance of a virtual currency in the United States may be attributed to the Coca-Cola Company, which issued the first-ever coupon in 1887.

What's new for virtual currencies is that, in the computer age, they've taken on digital form—essentially an account number stored on some form of computer-readable media. Hence, the Internal Revenue Service, echoing other governmental authorities, describes virtual currency as "a digital representation of value."[8]

Many commentators distinguish between digital currency and virtual currency, giving the latter a more narrow focus. By this understanding, digital currency is a digital representation of value that encompasses virtual currency, but it is not limited to virtual currency.

Digital currency includes credit cards, store credit, gift cards, and similar noncash means of payment that are denominated in widely accepted monetary units, like U.S. dollars and British pounds, and readily usable as a cash substitute.[9]

But virtual currency generally requires a further step of conversion to be expressed in U.S. dollars or similarly acceptable monetary units. Examples of virtual currency include credit card reward points, airline frequent flyer miles, and barter club trading points.

More recent forms of virtual currency include Amazon Coins, Linden Dollars, and Bitcoin. For the purpose of this article, the term "virtual currency" is intended generally to refer to this narrower meaning.

Digital currencies, including virtual currencies, can be categorized as either centralized or decentralized. The distinction is important, as we shall see. Most are centralized.

A centralized digital currency is administered by a central authority, which in the context of e-commerce is often a merchant or virtual world administrator. It is often intended to facilitate transactions within a particular domain, and the authority governing that domain governs the use of the virtual currency.

For example, Linden Labs, the creator and administrator of Second Life (SL), issues Linden Dollars as the official currency for the virtual world. SL is an online role-playing environment where users interact with one another using visual representations of themselves called avatars.

Despite the virtual world's video game appearance, SL mimics the real world in many respects. Its 10 million residents have used digital object construction tools provided by SL to build cities full of homes, shops, movies theaters, and night clubs as well as parks, countryside vistas, and waterfalls.

Shops sell home décor and clothing with which to personalize the virtual world experience. These sales reflect in-world transactions facilitated by the exchange of Linden Dollars.

As another example, the Delta Airlines frequent flyer miles are redeemable for a flight on that particular airline. And Amazon Coins are intended only to purchase apps from Amazon.

On the other hand, many credit cards and gift cards, such as those provided through VISA, are not

specific to any particular domain or merchant—they are designed for ubiquitous use and convenience. As discussed, modern extensions of the credit card system include PayPal and Apple Pay, which facilitate credit card payments using personal computers and smart phones without the need for carrying a traditional plastic credit card.

Given the advantages, why not always use a credit-card-based system? The short answer is that credit card payments generally require the use of third-party payment processors like VISA, which increases the complexity of the transaction and its processing costs. Merchants will pay a transaction fee to the payment processor, which either diminishes the merchant's profit or increases the price to the consumer.

Further, many transactions are poor candidates for credit card transactions for one or more of the following reasons:

- Size: The transaction is too small to justify the credit card processing fees, particularly payments less than one U.S. dollar (also known as micropayments).
- Value: The transaction involves the exchange of virtual items that are difficult to value in terms of legal tender.
- Taxation: Transactions with a readily ascertainable real-world fair market value are more susceptible to taxation (this issue is discussed in more detail later).
- Administration: Processing many small transactions through third-party payment processors can result in significant administrative overhead.
- Anonymity: One or more parties does not want to reveal his or her identity.

In contrast to a centralized digital or virtual currency, a decentralized currency is one that requires no central repository or single administrator to process transactions.[10]

Notably, it allows payments to be sent from one party to another party without going through any financial institution. Decentralized currencies tend to be virtual currencies.

Bitcoin and Ripple are the leading contenders. Other decentralized virtual currencies include Litecoin, Dogecoin, and Peercoin, which generally build on the constructs invented for Bitcoin. Like Bitcoin, these other virtual currencies are convertible to U.S. dollars through exchanges.

But Bitcoin is the only virtual currency to date to gain acceptance from major retailers and billion dollar businesses, which may provide a clue as to its endurance. At present, Overstock.com, Target, Microsoft, Amazon, eBay, Expedia, Whole Foods, and Zappos, among others, accept Bitcoin as payment for merchandise.

Because of its oversize influence on emerging digital payment systems, let's examine Bitcoin in a little more detail.

Bitcoin

Bitcoin is both a virtual currency and a digital payment system. It relies on peer-to-peer (P2P) networking and complex cryptographic software protocols to generate a virtual currency by the same name, and to validate transactions based on that currency.[11]

It was introduced in 2008 to little fanfare outside of a select group of computer enthusiasts. The virtual currency initially grew in popularity among traders of illicit goods once they realized its utility for providing secure and anonymous transactions. As its other advantages became recognized and exploited as well, namely low-cost processing, Bitcoin entered the mainstream.

After tolling in relative obscurity for several years at less than a penny on the dollar, the iconic digital coin made headlines in late 2013 when its exchange rate topped $1,200 per Bitcoin.

Some commentators heralded the emergence of Bitcoin as the latest wave of the disruptive information technology revolution that has upended tired and outdated business models repeatedly over the past few decades. Bill Gates called Bitcoin "a technological tour de force."[12]

Other commentators took a more skeptical view in the wake of a number of Bitcoin-related scandals that occurred during 2014, likening the whole affair to a modern version of the tulip mania of the 1630s in which foolish investors bid up Dutch tulip prices to ridiculous heights only to suffer ruin when prices eventually collapsed—a reference popularized by Charles MacKay's book on financial manias titled *Extraordinary Popular Delusions and the Madness of Crowds*.

Whether Bitcoin will survive or thrive as a virtual currency is unknown. But the technology upon which it is based represents the introduction of a key innovation that is expected to have a far-ranging impact on commerce irrespective of the success or failure of the virtual currency itself: an open ledger system for recording and validating transactions. Because it is distributed, publicly available, and verifiable, no central intermediary is required to record and validate transactions.

Bitcoin employs the open ledger to record payments of the virtual currency. The open ledger

technology can be modified to handle other kinds of transactions, too, such as contracts between people or transfers of other kinds of property. A number of companies are already pursuing this, which makes the technology a game-changer irrespective of Bitcoin itself.

The open ledger contains a sequential record of all transactions and current ownership. It reflects a chain, or sequence, of blocks; each block representing one or more new transactions. For this reason, it is commonly referred to as the "block chain."

The block chain is maintained by computers distributed all over the world by an activity called mining, wherein computer owners contribute their computing resources to track and validate transactions in exchange for a fee (typically in Bitcoins).

The block chain allows participants to check whether transactions are legitimate, that is, whether the transferor of a Bitcoin is authentic and the Bitcoin hasn't already been spent. The block chain is communicated directly among participating computers using P2P networking—an older concept first popularized in 1999 when Napster introduced P2P music file sharing.

Validation of a transaction relies on cryptography, and for this reason Bitcoin and similar virtual currencies are often called "cryptocurrencies." The basic premise of cryptography is that certain mathematical problems are too complex to be solved in a reasonable amount of time by the computing resources available to a potential attacker.

Bitcoin employs cryptographic hash functions designed by the U.S. National Security Agency to ensure the integrity of transactions. A hash function serves as a kind of fingerprint to uniquely identify a transaction and prevent its fraudulent alteration.

All the data associated with a transaction is used to generate a unique hash number. If a single character of data is changed in the original transaction, the hash function will not generate the same hash number—that is, its fingerprint will be different.

Because the possible range of hash numbers that can result from the hash function approaches an astronomical number, it's practically impossible for different transactions to have the same hash number. So the hash numbers employed by Bitcoin generally are considered unique and secure. They are the modern equivalent of wax seals placed on important documents—if they're tampered with, everyone would know.

Bitcoin also employs a cryptographic mechanism called a digital signature to validate the identity of a Bitcoin owner. It involves the use of a digital public/private key pair: a private key (a secret number known only to the holder) and a corresponding public key (provided to others) that is mathematically married to the private key.

A Bitcoin owner possesses the private key with which it "signs" a transaction to transfer a Bitcoin, thereby attaching a digital signature to the transaction data along with the signer's public key.

This digital signature works somewhat like a combination safe by encrypting the hash number of the transaction using the secret key. The true hash number is unreadable to others—essentially locked in the safe—until the corresponding public key is used to unlock it.

The public key only unlocks a digital signature created by the private key of the key pair, so anyone can use the public key to verify that the digital signature was provided by the true owner of the Bitcoin (the one possessing the private key).

Having unlocked the digital signature, the revealed hash number can be used to validate the associated transaction since any new hash of a valid transaction must always match the hash number contained in the digital signature.

The block chain technology adds a further degree of security by using the hash number of the preceding transaction to generate the hash number of the current transaction in addition to the current transaction data. Each time a transaction is validated, therefore, the entire block chain is validated.

This validation helps to prevent an attacker from altering a previous transaction in the block chain, such as changing the ledger to indicate, falsely, that 5,000 Bitcoins were transferred to an account instead of 50. It makes it nearly impossible to "cook the books."

Validation of a transaction is confirmed by a "consensus" protocol that relies on agreement among the Bitcoin miners. Essentially, once several different miners reach the same results for a block of transactions, the block is considered to be validated and is accepted into the block chain.

Let's look at a simple example. Suppose Bob wants to send 100 Bitcoins to Alice. In order to send Bitcoin, Bob would use a Bitcoin software program operating on his computer—often referred to as a client—to access a "wallet" containing his balance of Bitcoins. The wallet contains one or more Bitcoin addresses, which are analogous to credit card account numbers in that the account number identifies a particular account containing a balance of funds.

In this case, the address identifies a certain amount of Bitcoins (including, perhaps, a fraction of a Bitcoin, as a Bitcoin can be divided) and would correspond to a transaction in the Bitcoin block chain in which Bob received the particular Bitcoins.

Alice also operates a Bitcoin client on her computer, which she uses to create a new address in her wallet. She informs Bob of the address. Now that Bob has Alice's address, he tells his Bitcoin client to transfer 100 Bitcoins to the address provided by Alice. The Bitcoin client signs his transaction request with his private key and broadcasts it to the Bitcoin network.

Larry is a Bitcoin miner who participates in the network. He receives Bob's request and aggregates it with a number of other requests into a block. Larry then calculates a hash number for the block in accordance with the protocols used by Bitcoin.[13]

Larry competes against other miners to be the first to calculate the hash number because only the first solution "wins" the transaction fee.

Larry wins and is rewarded with a number of Bitcoins for his effort. The block containing the validated transaction is held by Larry until several other miners also validate the block, at which time the block is added to the block chain.

Once the transaction is added to the block chain, Alice's Bitcoin client can access it and verify that it is legitimate by verifying Bob's digital signature using his public key and by verifying Alice's possession of the address to which Bob has transferred the 100 Bitcoins using her private key. Once the transaction is verified by Alice's Bitcoin client, the balance of her wallet will reflect the newly added Bitcoins.

One drawback to the Bitcoin approach is that possession of the private key associated with a Bitcoin address is all that is needed to possess and spend the virtual currency. In this sense, Bitcoins are like bearer bonds—ownership is dictated by whoever is holding the instrument.

The onus of security, therefore, is on the user of the virtual currency to keep safe any private keys associated with Bitcoins. One Bitcoin owner inadvertently threw away a hard disk containing the private keys associated with about $8 million worth of Bitcoins, as estimated at the time of the loss.[14]

Other Bitcoin owners have suffered thefts of their private keys held by exchanges. The most famous theft involved about $800 million worth of Bitcoins pilfered in early 2014 from Mt. Gox—at the time the largest exchange for Bitcoins—prompting its closure and bankruptcy.[15]

Such losses have heightened public concern over the security of the virtual currency.

Other drawbacks to the Bitcoin approach involve time and scalability. It takes time to settle a transaction by validating it and reaching consensus among Bitcoin miners, typically on the order of minutes.

Compared to the nearly instantaneous approval experienced for credit card transactions, the lag may prove unacceptable for common e-commerce transactions if it cannot be improved. Further, the block chain may prove to be too cumbersome for handling large numbers of transactions since the block chain continues to grow as transactions are added to it.

Ripple is a competing platform. The Ripple approach is interesting in that it aims to solve both the time and the scalability problems of Bitcoin. Like Bitcoin, Ripple employs an open ledger system. However, it departs from the use of the block chain.

Rather than storing the entire history of transactions, the Ripple ledger contains the information necessary to establish the current ownership and balances for all Ripple accounts. Not only is the system more scalable, it is also much faster because it obviates the need for cryptographic hash functions to be calculated, which are computationally expensive and time consuming.

As new sets of transactions are processed under Ripple, the ledger is updated by a voting process conducted among participating computer servers in which a supermajority of the vote is required to validate a transaction. The integrity of the system is based on the idea that a sufficiently large number of independent servers makes the occurrence of a fraudulent transaction an extremely unlikely event because it would require an extraordinary conspiracy.

Income Tax Issues

In March 2014, the Internal Revenue Service ("the Service") provided guidance on how existing federal tax principles apply to transactions using virtual currency, including Bitcoin.[16]

In Notice 2014-21, the Service stated that virtual currency is a form of property, and general tax principles applicable to property transactions apply to transactions using virtual currency. As a consequence, taxpayers are required to determine the fair market value of the virtual currency in U.S. dollars as of the date of payment or receipt.

Notices, like Notice 2014-21, permit the Service to state a position on a particular tax matter in a timely manner without having to pursue the more laborious and lengthy effort required to issue a Revenue Ruling or facilitate a Treasury regulation.

A Notice generally is sufficient to support a tax position to the Service at the administrative level, but it is not binding law and courts may not give the weight to Notices that they afford to Revenue Rulings and Treasury regulations. So, Notice 2014-21 should be interpreted with that in mind.

According to Notice 2014-21, a taxpayer who receives virtual currency as payment for goods and services must, in computing gross income, include the fair market value of the virtual currency.

If the virtual currency is paid by an employer as remuneration for services, then the fair market value of the virtual currency paid is subject for federal income tax withholding, Federal Insurance Contributions Act (FICA) tax, and Federal Unemployment Tax Act (FUTA) tax, and must be reported on Form W-2, Wage and Tax Statement.

If the virtual currency is derived by the taxpayer from any trade or business carried on by the taxpayer as other than an employee, the fair market value of the virtual currency earned generally constitutes self-employment income and is subject to self-employment tax. The Service notes, in particular, that the mining of Bitcoin and similar virtual currencies constitutes a trade or business and, therefore, gross income derived from the activity constitutes self-employment income.

Notice 2014-21 explained that the same tax rules for the exchange of property applied to virtual currency. Ordinarily, a taxpayer realizes a gain or loss on the exchange of virtual currency for other virtual currency or property.

If virtual currency held by a taxpayer is a capital asset in the hands of the taxpayer, the taxpayer generally realizes a capital gain or loss on the sale or exchange of the virtual currency. Otherwise, the taxpayer realizes an ordinary gain or loss.

Not all transactions using a virtual currency are taxable, however, even if an accession to wealth is recognized from an economic perspective. A taxable transaction using virtual currency generally satisfies four conditions:

1. It falls within the definition of gross income
2. It is realized
3. Its value is readily ascertainable in U.S. dollars
4. It has real-world economic consequences[17]

Gross income is defined in section 61 of the Internal Revenue Code as "all income from whatever source derived."[18]

The Supreme Court has long interpreted the language in Section 61 to extend as far as constitutionally permissible, declaring that Section 61 contains "no limitations as to the source of taxable receipts, nor restrictive labels as to their nature."[19]

While seemingly boundless in its reach, there are a number of recognized exclusions to gross income. Some are explicitly established in the Internal Revenue Code, such as exclusions for gifts and inheritances under Section 102 and the subtraction of a property basis under Section 1001. Others are established by Treasury regulations, Internal Revenue Service rulings and guidance, or case law. But such exclusions are based on factors other than whether a transaction uses virtual currency.

With regard to the second requirement, the Supreme Court has held that before a transaction is reportable as gross income, it must be realized.[20]

The realization of income is premised upon the occurrence of a market transaction in which a taxpayer has actualized what until then was only the potential accession to wealth. That is, it involves a discernable market event—an exchange of property, a purchase of goods or services, and the like—that consummates a measurable increase in wealth over which the taxpayer retains dominion.

The first and second conditions are rather easy to satisfy. A barter club transaction, for example, where one member provides accounting services to another member in exchange for barter club trading points (a virtual currency used to facilitate transactions among club members) qualifies as reportable gross income to the performing member because it satisfies the definition of gross income and has been realized by the performance of services.[21]

The third condition is more complicated as to whether a transaction using a virtual currency is taxable. Under the Internal Revenue Code, taxes are reported by taxpayers in U.S. dollars.[22]

So in order to satisfy reporting requirements, the value of transactions using virtual currency

must be readily ascertainable in U.S. dollars. To this end, Notice 2014-21 addresses only the federal tax consequences of "convertible" virtual currency that have an "equivalent value in real currency."[23]

Barter club trading points, in the example above, are a form of convertible virtual currency because the fair market value generally can be ascertained from prevailing wage rates (for bartered services) and resale prices (for bartered goods) stated in real currency. The points earned tend to be convertible at a predictable exchange rate based on the market activity of the club members.

Bitcoin is a convertible virtual currency because currency exchanges exist with which to set the value of Bitcoins in U.S. dollars and other real currency. Likewise, Linden Dollars are traded on certain currency exchanges into U.S. dollars.

But what if no market rate is readily ascertainable for a virtual currency? The IRS has on occasion announced the nonenforcement of certain virtual currency transactions where ascertaining the value in terms of U.S. dollars has been problematic.

One example is the treatment of airline frequent flyer miles—a form of virtual currency redeemable for flights, hotel rooms, and rental cars, among other things. In Announcement 2002-18, the Service stated that it "will not assert that any taxpayer has understated his federal tax liability by reason of the receipt or personal use of frequent flyer miles or other in-kind promotional benefits attributable to the taxpayer's business or official travel."[24]

Ordinarily, awards constitute taxable income where the award is not simply a discount or return of a purchase amount. This distinguishes frequent flyer miles provided as gifts or awards—such as a bonus of 1,000 miles for opening a new account—from frequent flyer miles earned from business travel purchases. The IRS considers the latter to be a rebate or discount to the purchase price.[25]

Treasury regulation 1.74-1(a)(2) requires that awards be reported as gross income to the extent of their fair market value. But the volatility and unpredictability of airline pricing, the uncertainty of when and for what flight the frequent flyer miles will be redeemed, and the lack of a viable market for trading frequent flyer miles has made it difficult to establish a fair market value for miles received as awards.

For the most part, the Service has considered the matter an administrative problem. And, the Service has elected not to pursue taxation so long as an award of frequent flyer miles remains unconverted.

But what if the taxpayer converts the frequent flyer miles to an airline ticket? Consideration of that scenario brings us to the fourth condition: real-world economic consequences.

In Notice 2014-18, the Service stated that "the sale or exchange of convertible virtual currency, or the use of convertible currency to pay for goods or services in a real-world economy transaction, has tax consequences that may result in a tax liability."[26]

The Service's position is consistent with Announcement 2002-18, wherein it stated that relief from reporting frequent-flyer awards as taxable income would not apply where the awards are converted to cash or its equivalent.[27] This is known generally as the "cash out" rule.

In 2014, the U.S. Tax Court upheld a position taken by the Service in *Shankar v. Commissioner* that frequent flyer miles awarded by Citibank to new account holders as part of a promotional campaign were taxable.[28]

In that case, the recipient had redeemed the frequent flyer miles for a flight, and Citibank had issued a Form 1099-MISC to the recipient, which assigned a fair market value to the award based on the price of a comparable airline ticket, as determined by Citibank. By redeeming the frequent flyer miles, the taxpayer effectively had converted the frequent flyer miles to real-world property—an airline ticket—that had a value ascertainable in real currency.

Citibank characterized the award of frequent flyers miles as a gift.[29] Ordinarily, taxes are paid on the gain enjoyed by the taxpayer, which is computed as the fair market value of the property received in the exchange less the taxpayer's adjusted basis of the property given.[30]

The court noted that the taxpayer presented no evidence in this regard and, therefore, the entire amount of the airline ticket was included in the taxpayer's gross income. It seems that the taxpayer could have argued that his adjusted basis of the award was equivalent to that in the hands of Citibank, the donor, at the time the gift was made. Subtracting this adjusted basis from the fair market value of the airline ticket received would have lowered the reportable gain.

In any case, as illustrated with the frequent flyer miles example, there may be tax consequences for converting virtual currency to real-world property as part of a digital payment transaction. This presents a number of administrative and reporting challenges. This is because sufficient information will be tracked and provided to the taxpayer for determining any gain or loss on the virtual currency exchanged and the nature of that gain or loss (e.g., whether capital gains treatment applies). This is an especially challenging prospect given the increasing proportion of digital transactions involving small purchase amounts.

Payments via smartphones already provide precedence for this. For example, millions of consumers have purchased cups of coffee at Starbucks using the company's smartphone app in a manner somewhat akin to Apple Pay. In 2014, purchases using the app exceeded $1.5 billion.[31]

What if a virtual currency instead were used to purchase a cup of coffee? One can do this already via the app using Starbucks' Rewards—a virtual currency designed to encourage customer loyalty similar to credit card reward points. Some reward points appear to be offered merely for registering with Starbucks—no purchase of coffee needed.

So should these reward points be treated for tax purposes like the frequent flyer miles were treated in *Shankar*? It would seem so.

Because virtual currencies are considered property and not foreign currency, the Service provides no "de minimus" exclusion for gains and losses on conversion. Notice 2014-21 simply states that the use of a convertible virtual currency to purchase real-world goods and services is a taxable event.

Another smartphone app allows Starbucks customers to pay for coffee and even tip the barista using Bitcoin. Let's suppose that, each day before going to work, Alice purchases a cup of coffee priced at $2 using Bitcoins, realizing a small gain on each transaction, say 10 cents. In order to comply with the Service guidelines as currently understood, every exchange through which Alice converts her Bitcoins to U.S. dollars would need to track her transactions and send her a Form 1099-B listing at least the date and price of the transactions processed during the tax year.

At tax filing time, Alice should be prepared to aggregate these 1099s and file a Form 8949 with the Service listing each sale of Bitcoins corresponding to each of the hundreds of cups of coffee purchased. That's just for a daily cup of coffee! Clearly, the current reporting requirements present a serious administrative hurdle to the use of virtual currency. Without a more workable solution, it could encourage an atmosphere of noncompliance with the law.

The same administrative and reporting challenges exist for virtual worlds and online games where participants are allowed to "cash out" accumulated virtual currencies. The Service provides on its website a guide titled "Tax Consequences of Virtual World Transactions," which states in part:

> Online games create computer-generated settings for multiple users to interact as characters called avatars. These avatars frequently exchange goods and services in both the real and virtual worlds. Cyber-economic activities in the online world may have tax consequences that real world avatar counterparts need to consider.
>
> The IRS has provided guidance on the tax treatment of bartering, gambling, business and hobby income—issues that are similar to activities in online gaming worlds. In general, you can receive income in the form of money, property, or services. If you receive more income from the virtual world than you spend, you may be required to report the gain as taxable income.[32]

The guidance is vaguely worded. However, in view of Notice 2014-21, it suggests that income derived from virtual world transactions may have tax consequences roughly analogous to bartering clubs. To illustrate, let's suppose Alice, an SL participant, receives 50 Linden Dollars from Bob in exchange for making a virtual shirt for his avatar.

If Alice converts her 50 Linden Dollars to 2 U.S. dollars, she would recognize a $2 taxable gain assuming an adjusted basis of zero dollars. Note that if Alice and Bob were members in a bartering club and Alice had made a real-world shirt for Bob in exchange for 50 trading points, the value of those trading points in U.S. dollars would be reportable as taxable income.

Notice 2014-21 serves to delay Alice's virtual economy transactions from becoming taxable until converted to cash or real-world property, whereas the barter club transactions already take place in the real world.

As a practical matter, the condition of real-world economic consequences serves to limit the administrative burden of tax reporting. Taxes on some transactions using virtual currency may be administratively impractical to enforce, as we have seen from earlier examples. Transactions in the virtual world are no different.

The value of Alice's collection of Linden Dollars may be ascertainable in U.S. dollars via the SL currency exchange. But taxing every small transaction in SL would become a tedious affair for the taxpayer and the Service alike, and it could put the Service in the position of having to argue over the real-world value of a virtual shirt.

The condition of real-world economic consequences also is rooted in accounting theory. Camp (2014) argues that taxing only transactions with real-world economic consequences comports with the tax treatment of imputed income.[33]

Taxpayers commonly derive economic income from self-benefiting activities and self-owned property that have both readily ascertainable value and may be fully realized, yet such income is not taxable. If Alice cleans her own house and repairs her own

car, she does not pay income taxes on the value of the services she provided for her own benefit.

In this vein, Camp distinguishes between activities directed to play and those directed to profit. Role-play activities in virtual worlds like SL and online games like World of Warcraft "are not normal market transactions but represent self-provided services or, at most, enjoyment of self-owned property. The service provided is play and the property is the right to play."[34]

In effect, Alice may accumulate Linden Dollars from her role play in SL, which should not be taxed because it is an extension of her play—a self-benefiting activity, like earning Monopoly money.

It's the conversion of virtual property and virtual currency into cash and real-world property that breaches the boundary between the virtual economy and the real one, Camp notes. The converted property is no longer the fruit of play. Instead, it assumes the characteristics of a normal market transaction, including a real world accession to wealth, which is taxable.

But that boundary is beginning to blur. As our lives become increasingly integrated with online and virtual experiences, the distinction between the virtual world and the real one is becoming less obvious. No one today thinks of e-mail, instant messaging, or web browsing as visiting some otherworldly digital place. They're a part of our ordinary lives, and we routinely conduct taxable transactions using these tools.

Emerging technologies will one day seem ordinary as well. Facebook, for example, announced at a 2014 conference an ambitious plan to put 1 billion people into a massive virtual world as a new communication platform based on virtual reality technology it has developed called Oculus Rift.[35]

If Facebook's vision succeeds, then working, shopping, and socializing in the virtual world will become a mere extension of one's ordinary activities, and the real economy will incorporate this new platform just as it has for other tools of communication. One may expect that the Service will expand its enforcement into these virtual activities in response to their growing significance to the economy.

Valuation Issues

For taxation purposes, as outlined in Notice 2014-21, transactions using virtual currency should be reported in U.S. dollars and the fair market value should be determined as of the date of payment or receipt. How is fair market value determined?

Financial Standards Board (FASB) Accounting Standards Codification (ASC) topic 820 defines the fair value standard as follows:

> Fair value is a market based measurement, not an entity-specific measurement. For some assets and liabilities, observable market transactions or market information might be available. For other assets and liabilities, observable market transactions and market information might not be available. However, the objective of a fair value measurement in both cases is the same—to estimate the price at which an orderly transaction to sell the asset or to transfer the liability would take place between market participants at the measurement date under current market conditions.[36]

If a virtual currency is listed on an exchange, and the exchange rate is determined by supply and demand, then the exchange provides observable market transactions by which fair market value can be determined. This analysis of observable market transactions is known as a market approach to valuation. While this seems straightforward in theory, it may not be in practice.

Many virtual currencies, like Bitcoin, are very volatile. Exchange rates can vary widely during the trading day and between exchanges. Does one select the closing price? At which exchange? The lack of official guidance may allow taxpayers to "game the system" by reporting favorable exchange rates that minimize or eliminate taxes.

What if the virtual currency is not listed on an exchange? The Service does not specifically address this issue in Notice 2014-21. Depending on the circumstances, an appraisal or valuation may be performed to estimate the fair market value. To this end, a valuation analyst would consider the three generally accepted property valuation approaches: (1) the market approach, (2) the income approach, and (3) the cost approach.

Analysts may use more than one valuation approach, or more than one method of a particular valuation approach, and then synthesize the results. We've already introduced the market approach. The most reliable market information for valuing a virtual currency is the direct observation of its trading on an exchange, assuming that the trading is established by market supply and demand, notwithstanding the problem of selecting which observations are most appropriate.

If the virtual currency is not listed on an exchange, the market observations of property with comparable characteristics often can be used by a valuation analyst to develop units of comparison to the property at issue, such as using the stock prices of comparable public companies to inform the value of private companies.

The unique nature of many virtual currencies may make an indirect, comparative approach difficult and costly. But if a virtual currency is "pegged" to a good or service, the market price of that good or service can be informative of the fair market value of the virtual currency.

For example, if a dozen Starbucks reward points can be exchanged for a $2 cup of coffee, the price of a cup of coffee reflects observable market information that can be used to determine the value of a reward point, which in this example equates to about 17 cents.

The income approach employs methods to estimate the value of property by calculating the present value of future income streams expected to be generated by use of the property over its remaining useful life. These methods generally differ in how those income streams are determined.

Stock, for example, represents a claim on the future income of a company, and the expected future income informs the fair market value of the stock. But a virtual currency represents a medium of exchange and normally does not generate income by its use. So, generally speaking, the income approach offers little help in determining the fair market value of virtual currency.

The cost approach estimates the fair market value of property by considering what cost a prudent person would incur at current prices to replace the property and then adjusts that cost for any depreciation and obsolescence. The valuation analyst should also consider as cost components both (1) developer's profit and (2) entrepreneurial incentive. These two components are often overlooked by inexperienced analysts.

The developer's profit reflects the reasonable profit expected on the development costs incurred in the asset creation. And the entrepreneurial incentive reflects the economic benefit required to motivate the asset creator into the development process, which is often viewed as an opportunity cost.

The cost approach may sometimes serve as the "floor" for estimating fair market value. This is because the cost approach doesn't take into account any accession to wealth that may accrue from holding and using the virtual currency.

Like the income approach, however, the cost approach may be of little help in determining the fair market value of typical virtual currencies. This is because an incremental unit of virtual currency costs essentially nothing to create. What, for instance, is the incremental cost to generate another frequent flyer mile or reward point? They are just entries created instantly in a computer file.

Bitcoin may be an exception if one considers the costs of mining a Bitcoin, which involves expending enormous computational power to solve complex mathematical problems. That computational power has significant costs associated with it, namely the costs of specialized equipment and the energy to power it.

These costs can be quantified. However, determining the replacement cost of a Bitcoin can be especially challenging due to the winner-take-all rules of Bitcoin mining. It involves predicting the computational effort that will be required to "win" a newly generated Bitcoin in a dynamic, highly competitive environment.

The level of computational difficulty is constantly increasing due to the built-in scarcity of the Bitcoin protocol that limits the rate at which new Bitcoins can be generated and caps the total number that can be generated at 21 million.

In many ways, estimating the fair market value of Bitcoin is a lot like estimating the fair market value of gold. The value of gold is largely a matter of what market participants say it is by exchanging real currency for it.

So it is not surprising that gold is valued most reliably using the market approach. Gold itself has little practical utility (outside of jewelry and limited industrial use), and it does not generate income. The income approach, therefore, is not feasible. And, the cost approach offers only limited help. While there is a cost to extracting from the ground and refining it, this cost varies widely and does not correlate closely—at least on a short-term basis—to the observed market price of gold.

Unlike gold, however, virtual currency may not last forever. Consideration, therefore, should be given to the remaining useful life (RUL) of a virtual currency. RUL is integral to determining value under the general valuation approaches.

In the cost approach, RUL serves as a means to quantify obsolescence, if any. A longer RUL ordinarily results in a greater value of a virtual currency because the currency suffers less obsolescence.

In the market approach, RUL is useful in selecting and adjusting guideline assets. If the RUL for a subject virtual currency is different from that of the guideline assets, then an adjustment may be warranted to the transaction multiple used to price the guideline assets, or it may indicate a lack of marketability for the subject virtual currency.

Determining the RUL of a virtual currency requires consideration of the environment in which the currency operates. Common factors that influence the RUL of a virtual currency include the following:

1. Functional factors: Virtual currencies suited for specific purposes typically have shorter remaining useful lives than those suited for more general purposes because the risk of

obsolescence increases at greater levels of specificity.

A virtual currency associated with a particular store, such as Starbucks, will tend to have a shorter RUL than one designed for universal commercial use.

2. Contractual factors: The RUL of a virtual currency may be affected by contractual stipulations that govern its use. For example, the terms of use for frequent flyer miles commonly provide for the expiration of miles earned if they are not used within a particular period of time.
3. Economic factors: The RUL of a virtual currency may be affected by economic circumstances or events outside the course of normal activities. Examples of such events include legislative action affecting the regulatory environment and the granting of patent rights.
4. Technological factors: A virtual currency can suffer technological obsolescence when it is tied closely to a platform, product, or service with a high risk of being substituted for more technologically advanced platforms, products, or services.

   Cryptocurrencies, like Bitcoin, supplanted prior forms of digital currency. This is because cryptocurrencies offered technological advancements such as the distributed ledger system and public key encryption.

   Another consideration is whether the technology platform upon which a virtual currency is based is open source or proprietary. This can influence the extent to which others adopt the virtual currency and make innovations with it.
5. Cultural factors: Cultural issues may affect a virtual currency's RUL. It may quickly become obsolete if the public perceives that the virtual currency is not trustworthy or its use is associated with illegal or socially undesirable activities.

   After a meteoric rise, Bitcoin's reputation was sullied by its association with online sales of illegal drugs and the perception that it was vulnerable to theft by cybercriminals.

Each of these RUL factors may be considered in estimating the RUL of a virtual currency. Multiple factors may be involved. Under ordinary circumstances, however, the factor indicating the shortest RUL warrants primary consideration in the valuation analysis.

Conclusion

This discussion addresses the impact of emerging digital payment systems on tax accounting and valuation. Until now, digital payment systems have focused on extending the utility of conventional payment methods like credit cards.

"The Service's position is that . . . general taxation principles applicable to property transactions apply to transactions using virtual currency."

But emerging digital payment systems likely will incorporate virtual currency as well. Examples of virtual currency include credit card reward points, airline frequent flyer miles, barter club trading points, Amazon Coins, and Bitcoins.

Transactions involving virtual currency may have federal tax consequences. The Service's position is that virtual currency is a form of property, and general taxation principles applicable to property transactions apply to transactions using virtual currency.

As a consequence, taxpayers are required to determine the fair market value of the virtual currency in U.S. dollars as of the date of payment or receipt. A taxable transaction generally satisfies four conditions:

1. It falls within the definition of gross income
2. It is realized
3. Its value is readily ascertainable in U.S. dollars
4. It has real world economic consequences

If a virtual currency is listed on an exchange, and the exchange rate is determined by supply and demand, then the fair market value of the virtual currency can be determined from the exchange rate.

If the virtual currency is not listed on an exchange, a valuation analyst could estimate fair market value by considering three generally accepted valuation approaches: (1) the market approach, (2) the income approach, and (3) the cost approach.

In performing the valuation analysis, the valuation analyst should consider how the RUL of the virtual currency affects each of these generally accepted valuation approaches.

The Onion may have had it right that money is an illusion of sorts. The increasing use of virtual currency accentuates this point. But the illusion may have real taxation consequences.

Notes:

1. "U.S. Economy Grinds to a Halt as Nation Realizes Money Just a Symbolic, Mutually Shared Illusion," *The Onion* (February 16, 2010). Ben Bernanke did not actually make the remarks attributed to him in the satirical story.
2. Ramon DeGennaro, "Merchant Acquirers and Payment Card Processors: A Look Inside the Black Box," *Economic Review* (First Quarter 2006).
3. U.S. patent application no. 13/753,189.
4. Edward Castronova, "Digital Value Transfer Systems," *Washington and Lee Law Review* 71, No. 2 (September 2014): 15.
5. Ibid.: 16.
6. U.S. Department of Treasury, Financial Crimes Enforcement Network (FinCEN), Guidance on the Application of FinCEN's Regulations to Persons Administering, Exchanging, or Using Virtual Currencies (FIN-2013-G001, March 18, 2013).
7. 31 U.S.C. § 5103.
8. Internal Revenue Service Notice 2014-21.
9. Note that while credit cards may come in the form of plastic cards, the pertinent information related to the credit card account is stored digitally within the magnetic strip affixed to the plastic card.
10. Based on testimony of FinCEN Director Jennifer Calvery before the Senate Committee on Banking, Housing and Urban Affairs on November 19, 2013.
11. Satoshi Nakamoto, "Bitcoin: A Peer-to-Peer Electronic Cash System," www.bitcoin.org (October 31, 2008).
12. Interview with Bill Gates, *Fox Business News* (May 6, 2013).
13. Generation of the hash number must conform to certain rules, including the rule that the hash number must conform to a certain format that can change over time. There is no way to tell whether an acceptable hash number will result until the calculation is performed, so miners often have to make several attempts, expending considerable computational resources in the effort. Further reading on the subject of Bitcoin mining can be found at www.bitcoin.org/en/resources.
14. "Missing: Hard Drive Containing Bitcoins Worth £4m in Newport Landfill Site," *The Guardian* (November 27, 2013).
15. "Apparent Theft at Mt. Gox Shakes Bitcoin World," *New York Times* (February 25, 2014).
16. IRS Notice 2014-21.
17. These conditions are generalized and ignore exceptional provisions such as mark-to-market rules where taxable events may occur even though no closed transaction has occurred.
18. 26 U.S.C. § 61.
19. Commissioner v. Glenshaw Glass Co., 348 U.S. 426, 429 (1955) (the Court stated further that gross income includes "instances of undeniable accessions to wealth, clearly realized, and over which taxpayers have complete dominion").
20. Id., at 431.
21. Under Treasury Regulation § 1.6045-1, a barter club is required to report transactions by club members to the Internal Revenue Service.
22. 26 U.S.C. § 985. There is one exception to the use of the U.S. dollar: a qualified business unit may use a currency of the economic environment in which a significant part of such unit's activities are conducted and which is used by such unit in keeping its books and records. But functional currency other than the U.S. dollar must be translated into dollars for reporting to the Internal Revenue Service.
23. Convertibility to U.S. dollars is understood to mean the value in U.S. dollars is readily ascertainable by some exchange mechanism. The conversion to U.S. dollars need not be direct, as it can be achieved by the intermediate conversion to another real currency.
24. Announcement 2002-18, 2002-1 C.B. 621.
25. It's not always clear, however, when the receipt of frequent flyer miles constitutes an award and when it constitutes the return of a purchase amount.
26. IRS Notice 2014-21, Section 3.
27. Announcement 2002-18, 2002-1 C.B. 621.
28. Shankar v. Commissioner, 143 T.C. No. 5 (2014).
29. M. White, "Income Taxes on Frequent Flyer Miles?!" *Time* (January 30, 2012). Note that under the Internal Revenue Code, gifts in excess of $600 are reportable to the Internal Revenue Service.
30. 26 U.S.C. § 1001(a).
31. J. Heggestuen, "An Inside Look at the Starbucks App, the Most Successful Mobile Payments System in the US," *Business Insider* (October 17, 2014).
32. IRS, "Tax Consequences of Virtual World Transactions," available at http://www.irs.gov/Businesses/Small-Businesses-&-Self-Employed/Tax-Consequences-of-Virtual-World-Transactions.
33. Bryan Camp, "The Play's the Thing: A Theory of Taxing Virtual Worlds," TaxBlog.com (February 4, 2014), Section II(B)(3).
34. Ibid., Section III(B)(3).
35. "Oculus Rift CEO: We Want to Put 1 Billion People in Virtual Reality," *The Guardian* (May 7, 2014). Oculus Rift is a virtual reality headset.
36. Accounting Standards Codification topic 805-05-1B.

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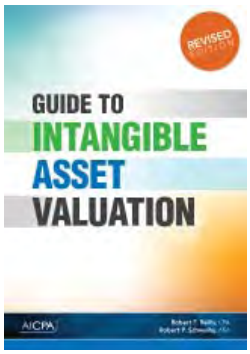
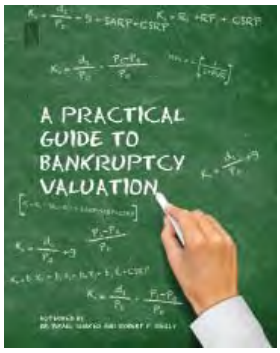
Valuation Textbooks Authored by Robert Reilly and Robert Schweihs





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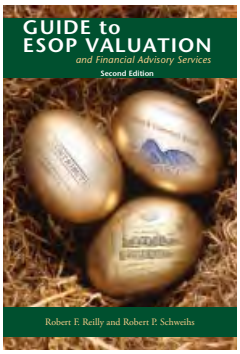

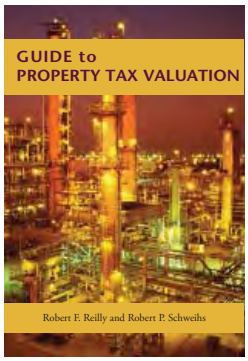

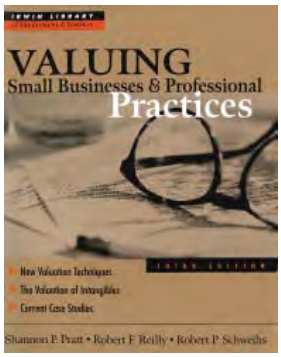

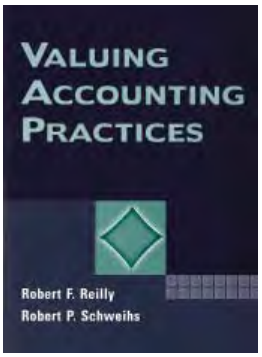

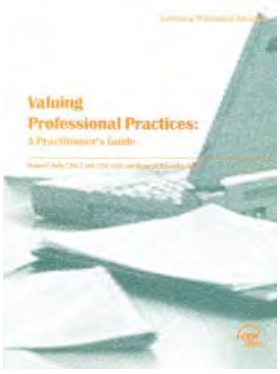

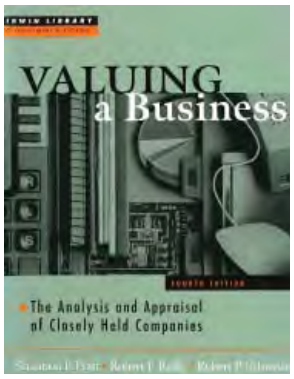

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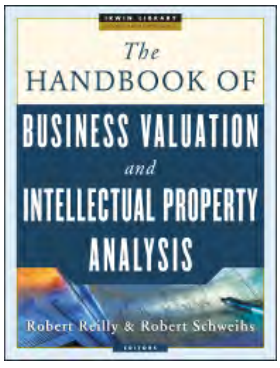

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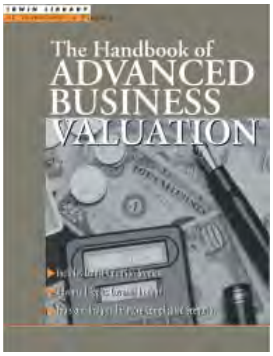

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Willamette Management Associates

Best Practices

Q&A with Tim Hauser of the U.S. Department of Labor

Frank (Chip) Brown, CPA

As part of a national enforcement project centered on ESOPs, the U.S. Department of Labor (DOL), through its Employee Benefits Security Administration (EBSA) agency, has increased its level of scrutiny of ESOP employer stock valuations relied on by fiduciaries in ESOP stock purchase or sale transactions. This increased scrutiny has led to an increase in the number of ESOP-related suits filed by the DOL. Tim Hauser is the Deputy Assistant Secretary for Program Operations of EBSA at the DOL, and as such is the chief operating officer of the agency. His responsibilities include overseeing the EBSA regulatory and enforcement of ESOPs and other welfare benefit plans. The purpose of this interview with Tim is to provide a regulatory perspective on ESOP employer stock valuation and related enforcement. The topics discussed in this interview range from his opinion on the areas for improvement in ESOP valuations to his thoughts on current enforcement efforts. The author hopes this interview not only provides insights on important ESOP-related issues, but also illustrates that a continued dialogue between all parties (e.g., ESOP practitioners and the DOL) may result in a common perspective that reduces litigation in the future.

1. Can you give an overview of your role and your division within the framework of the U.S. Department of Labor (DOL)?

I am the deputy assistant secretary for program operations of the Employee Benefits Security Administration (EBSA). EBSA is the DOL agency that enforces the Employee Retirement Income Security Act (ERISA) and protects the interests of benefit plan participants, private retirement plans, health plans, and other welfare benefit plans.

In my role, I serve as the chief operating officer of EBSA. My responsibilities include overseeing the agency's regulatory, enforcement, and reporting activities. I am part of our national office in Washington D.C.

We also have 10 regional offices, which are staffed with field investigators as well as benefit advisers who are available to provide direct assistance to the public.

2. How has your current role changed from your previous position at the DOL?

Until December 2013, I was the associate solicitor of the Plan Benefits Security Division (PBSD) of the Office of the Solicitor at the DOL. PBSD staffs the attorneys in Washington, D.C., who represent EBSA. In moving from PBSD to EBSA, I have gone from being the lawyer to being the client.

3. In general, do you think that employee stock ownership plans (ESOPs) are good for employees, if implemented and administered properly?

ESOPs are written right into the law and they can serve an important set of social goals. ESOPs can promote worker ownership and worker engagement. ESOPs also can provide valuable retirement benefits to people. Our enforcement program is intended to protect these retirement benefits.

4. In general, why has there been such an increase in ESOP-related litigation and enforcement efforts by the DOL?

We believe there is a chronic problem with ESOP appraisals. To address this problem, we have increased the level of scrutiny of ESOP appraisals. When we go in and open an ESOP case, I ask my field people to take a close look at the appraisal. And we often review the appraisal at the national office as well.

The number of suits that we have filed to recover ESOP losses simply reflects the number of egregious cases that we have seen. The cases we have brought are only those that we thought were bad enough to merit litigation and that we could not resolve by other means (including settlement).

The bottom line is that we want ESOP transactions to occur at the right price and be in the best interest of the plan.

Ultimately, my hope is that the quality of appraisals and fiduciaries' consideration of those appraisals improves. But, I'm afraid that, for the short term, I expect to see more litigation and more cases in this area because I do not think we are there yet.

5. Did the unexpected great recession and downturn in the economy/markets contribute to the increase in litigation?

We have not filed suit against anyone for failing to predict the 2008 downturn. Our focus is on whether parties acted prudently, loyally, and in good faith at the time of the transaction.

It is not based on hindsight. In the transactions that are the subject of our lawsuits, the imprudent conduct occurred irrespective of whether the markets subsequently went up or down.

6. How do you determine which cases to pursue or investigate?

We look at each matter on a case-by-case basis. Sometimes what happens is you start to see patterns. You see the same names popping up again and again in transactions that look problematic to us. At some point you say, I keep seeing this person, maybe I need to look at the deals that person is doing. But really, it's more case-by-case.

We also have a national enforcement project centered on ESOPs. We have criteria to evaluate those cases and what we were looking for. Then we make decisions based on the inventory of cases and our resources.

7. You mentioned the national enforcement project centered on ESOPs. Can you talk more about that project?

There are a series of problems in the marketplace that we regulate. There are certain areas that we choose to focus on as enforcement priorities. We make a dedicated effort to find violations and to correct them. ESOPs are one of our longstanding national enforcement priorities.

For ESOPs, two common violations seem to arise with greater frequency than others. The most common violation involves parties relying on an unreliable appraisal in deciding whether to move forward with a transaction at a particular price.

In these cases, our allegation is that the fiduciaries failed to exercise adequate diligence in obtaining and reviewing the appraisals as part of the transaction process.

The other common violation arises where the plan effectively owns the company (or owns a substantial part of the company), but the plan is not exercising any of its ownership rights to protect its interest in the company. For example, while management is looting the company of its value, the fiduciaries are asleep at the wheel and doing little or nothing to protect the stock's value.

Outside of enforcement, I'm really interested in making an effort for more concerted outreach to the ESOP community and in seeing if there are other ways we can address the major issues EBSA has seen in order to prevent abuses and violations from happening in the first place. I have made an effort to talk more with ESOP industry associations and groups and to attend ESOP events.

8. Can you talk about the common issues that you are focusing on with respect to ESOP appraisals?

If you look at our recent litigation, a common problem is reliance on unrealistic projections of future performance in determining value. ESOP appraisals are often based on management projections.

An issue can arise when the projections are too rosy. This can result in an inflated appraised value and an overpayment by the ESOP in the transaction. I see the use of aggressive and unrealistic projections as a chronic problem with ESOPs.

In many cases we investigate, these "management projections" are essentially prepared by the counterparty to the ESOP in the transaction. It is not uncommon for the projections to be prepared by the very people who are selling the stock to the ESOP or who are subordinates of the sellers.

So you have parties to a transaction (that is supposed to be an arm's-length deal) who are just

"If you were investing your own money, you wouldn't just go through the motions. . . . You would be kicking the tires and making sure that the deal made sense. . . ."

plugging in whatever their counterparty told them will be the future performance of the company.

In these cases, ESOP fiduciaries are accepting projections without asking themselves about how realistic the projections are. They are not asking questions such as: How do the projections compare to the performance and projections of the company's peers? How do the projections compare to the historical performance of the company?

How plausible is it that the company could really go forward with these projections? How volatile or sensitive are the projections to various assumptions? What happens if the projections are off by a couple of percentage points? Or what happens if there is a recession?

Will the company be able to service the debt in these types of downside scenarios? What will happen to the company's value as competition drives down profits, or as performance reverts to the mean?

People need to think hard and perform some level of scrutiny related to the projections. And in the cases we bring, we just don't see that.

We just see management projections getting plugged right in to the ESOP appraisal without a critical review. Everybody moves on and does their math based on these management projections without "kicking the tires."

We typically see a standard disclaimer in the appraisal report that it's based on management's projections. The appraisers assert that they don't vouch for what management told them and that their conclusions are solely a reflection of those numbers, but then the fiduciaries don't scrutinize the numbers either.

Essentially the appraisal presupposes the accuracy of the financial records and the projections provided to the appraiser. But, I really think fiduciaries need to insist on more than that.

If the projections are prepared by the appraiser instead of management, the fiduciary needs to ask the appraiser to do a critical analysis of the reasonableness of the projections. The fiduciary needs to then talk to the appraiser about the projections and ask questions along the lines of those I mentioned earlier. Critical thinking is really important here.

Another problem that we see with ESOP appraisals is out-of-date financials. That's pretty common and that's a killer too. It's an issue that is relatively straightforward.

You are not arguing about the precise amount of the company-specific risk in your discount rate, or some technical issue involving valuation arcana. It's simply that you were relying on data that was months and months old—and things have changed at the company since then.

Another appraisal issue in some of the cases we have filed is the use of control premiums on plans not really buying control. The stock value is getting a boost based on a control premium. But then you look at the various documents (stock purchase agreements, the various covenants on the finance agreements) and see that the plan is not really getting control.

There can also be an issue where the plan pays for the full value of stock but does not get all of the upside because of dilution. For example, when a plan is buying 100% of the equity in the company, but it doesn't get 100% of the upside due to various dilutive items such as warrants, options, or earnouts that are not considered in determining adequate consideration. The result is that the plan will be overpaying for the stock.

I could give you a laundry list of issues with ESOP appraisals. I keep a running list of the different things I have seen. People are always coming up with new things I haven't thought of.

9. Separate from the appraisal, are there any other areas related to ESOP transactions that you want to comment on?

Moving apart from the appraisal issues, another big problem I sometimes see is a lack of seriousness about these transactions. If you are the person with the authority to make a multimillion-dollar decision, you really should be acting more like a private investor who is putting his own money on the line.

You should act as if this is your retirement security at stake. Act as if you are investing 100 percent of your retirement. What process would you employ if that were the case? I guarantee you that the process you would employ would not be a checklist, pro-forma type of thing.

If you were investing your own money, you wouldn't just go through the motions. You wouldn't just hire the appraiser to make sure you got the opinion you wanted.

You would be kicking the tires and making sure that the deal made sense both from a process stand-

point and a substantive standpoint. I'm not saying this isn't the way it usually works, but in the cases we bring, it's never how it works.

Another issue we have seen in our cases that's troubling is that we don't actually see negotiations. If we do see negotiations, they are very marginal and generally regard some very minor provisions of the purchase agreement that do not result in increasing or protecting the benefits the ESOP is supposed to provide participants.

We do not see a lot of haggling over price. We do not see a lot of pushing back. Indeed, in some cases, we see trustees actively working with the seller to come up with ways to maximize tax benefits for the seller to the detriment of the plan.

10. What could ESOP practitioners, such as attorneys, appraisers, and institutional trustees, do to help improve these issues that you are seeing?

We recently entered into a settlement agreement in the Sierra Aluminum case. If people follow the document as best practices, we all would be hugely better off. I think the transactions would be much better if people really took the provisions in this agreement to heart and followed them.

Obviously the agreement was structured with a particular case and a particular set of parties in mind. So, to some degree, it is tailored to the problems we identified in a particular case. But there is a lot in the agreement that is broadly applicable to everybody.

11. Given that the settlement agreement is based on one transaction in a particular case, is there anything that you would add to the document in terms of best practices?

I probably would say more about earnout agreements and add information on warrants/options as well as indemnification. There are probably some other items and information that I'd cover if I really went through my list.

12. Is there a higher level of scrutiny for complex ESOP transactions as opposed to more basic structured ESOP transactions?

I'd say our antennae are going to go up more if we see a lot of complexity. At some point we have to wonder if all the complexity is there because it's good for the plan or if it is there for some other reason. Usually, you can do a transaction where the plan purchases shares of common stock and pays fair market value without too much complexity.

The overall point I would make is that in determining the structure of the transaction, the fiduciary is obligated to make sure that the interests of the ESOP participants are taken into account. That is, the trustee has to consider how that transaction and its structure could help or hurt participants.

13. In general, what due diligence should be performed in regards to the reasonableness of management projections used in the valuation?

I would point to the portions of the Sierra Aluminum settlement agreement that cover the topic of projections. You will see that projections were an issue in that case.

So, we took some care in spelling out how plan fiduciaries should look at projections. Basically, we think you should consider the source of the projections.

Are these projections coming from someone who is essentially on the opposite side of the deal from the plan? If the answer is yes, the plan representatives should be skeptical about those projections. We also think you should compare the projections with historical results and the company's peer group.

You should ask yourself what the projections mean for the company in the future. If the company is projecting ever increasing performance and the sky's the limit, ask yourself exactly what market share you are anticipating that the company is going to have ten years from now—is that kind of performance realistic?

You should be asking yourself about what happens if the company misses projections. What are some reasonable scenarios where the company might miss the projections? What would that mean for the company?

Given the amount of debt in some of these transactions, it often is the case that if the company misses projections by even a little bit, then all of sudden it can't meet the loan payments.

14. It is my understanding that Section 3(18) of ERISA contemplates that the DOL would promulgate regulations to guide valuations of closely held stock of ESOP sponsor companies. Given that there are no such regulations (at least not finalized), what guidance would you encourage or suggest that plan fiduciaries consider in valuing securities for which there is not a generally recognized market?

The Sierra Aluminum settlement agreement lays out a lot of factors or guidance. And you can look to various professional standards for appraisers. There is also quite a bit of case law such as *Donovan v. Cunningham*, *Chao v. Hall Holding*, and *Howard v. Shay*.

"We do not, as a rule, bring lawsuits for close judgment calls. We are looking at abusive transactions."

The law is fairly well developed. But what we are talking about in these cases is very common-sense. We do not, as a rule, bring lawsuits for close judgment calls. We are looking at abusive transactions. Typically, these aren't situations where professional appraisers should have needed a lot of guidance from us.

15. You touched on this earlier, but what are your thoughts on control premiums for ESOP transactions?

The decision on whether to pay for control is always the trustee's decision. The trustee may be getting advice from an appraiser. But the trustee is the one who is going to be on the hook. The trustee is the one who needs to look out for the plan's interests.

And with control premiums, from my standpoint, the trustee needs to question and consider whether the plan is actually getting control. Is it going to be the exact same people running the company? Are they going to be running it exactly the same way?

Has the trustee fully considered the issue where, under the terms of the agreement, the plan does not even have a right to control who manages the company or how it's managed? In such a case, the plan should not be paying for control.

Even if the plan is acquiring the ability to run the company, I think the trustee needs to think hard about whether to a pay a control premium. Because normally when you think of somebody in the private market paying a control premium, they are doing it because they think they have some way to restructure, change the business plans, alter management to reduce costs, or increase revenue.

That is not typically the case when a plan acquires control. I just don't normally see that.

16. Can you discuss in general what you consider to be an independent appraiser? Does work performed by an appraiser for other related parties prior to the transaction impair independence?

The Sierra Aluminum settlement agreement goes into this in some detail.

We do not think you should hire an appraiser that is picked out by your counterparty. We don't think you should use an appraiser that's been doing work for the counterparty, including any affiliates, friends, or relatives of the counterparty.

You really want your own independent adviser. What is of concern in a lot of the transactions where we brought lawsuits is a sense that the "fix was in." That is, the process and its outcome were rigged by the counterparty.

The counterparty essentially took the appraiser out for a test drive prior to the transaction. The counterparty got a feel for whether or not the appraiser was likely to come in at a good price for the counterparty, not the plan. Then the trustees—whose job is to look out for the plan—just go with that same appraiser for the ESOP.

Fast-forward to the closing, and the transaction price is the price that's right for the seller, not the plan.

That is not what you want if you are trying to make a decision on what is in the plan's best interest. You want your own independent appraiser who does not owe anything to the seller. You do not want to be worried about whether the appraiser has any sense of duty to the other guy on the opposite side of the deal from you.

17. In general and at a high level, what should be done to assess the work of an appraiser?

The Sierra Aluminum settlement agreement discusses this. You need to make sure that you select and hire the appraiser prudently. You need to make sure the appraiser has complete current and accurate information.

You need to verify for yourself that it is reasonable to rely on the appraisal. This means you actually have to read the appraisal, understand what the assumptions are, and consider sensitivities in the analysis.

18. What are your thoughts on a fiduciary considering the fair market value of seller notes, which may be lower than the face amount, in determining if an ESOP paid more than adequate consideration for sponsor company shares?

The trustees need to recognize that they have an obligation to get the price right and to report the price correctly both in the plan's filings with the government and in the information provided to participants.

And, they have a distinct obligation to get the financing right. They have to do all these things, not just some. The financing might be good, but that does not get the trustee off the hook if he sets the price too high.

19. What does it take for the DOL to file suit against an appraiser? Typically, the appraiser is not named as a defendant in DOL suits.

The chief way we regulate the plan universe is through fiduciaries. Fiduciaries have a duty of undivided loyalty to the plan. They have a duty to be prudent. They are obligated to refrain from prohibited transactions. And if they run afoul of those duties, we can bring a lawsuit. We can compel them to correct their breaches. We can hold them accountable for all of the losses caused by their misconduct.

If you are not a fiduciary, we have very limited remedies. We may be able to bring suit against nonfiduciary service providers for knowing participation in an ERISA violation. We may be able to get them to disgorge fees.

We can maybe get some species of injunctive relief. But, after that, a nonfiduciary is not obligated under ERISA to be prudent, loyal, to refrain from conflicts of interest, or to act in the plan's interest. They just don't have those obligations.

And, we really don't have the same means for holding them accountable. Usually appraisers are not ERISA fiduciaries under our current regulations. And so, usually, we do not bring lawsuits against them.

The exception is when the conduct is so egregious and it falls so short of the norms that we think we need to bring suit despite ERISA's remedial limitations. In those instances, even though we have such limited monetary remedies, the courts may say that this is a person who should not be doing business with employee benefit plans anymore. In that type of case, we have brought, and are prepared to bring, lawsuits against a nonfiduciary appraiser.

The remedial limitations are frustrating because a lot of times, in my experience, the service providers, the consultants, the appraisers, are often the engines that make these transactions go.

Nobody would have ever entered into the deals, in the first place, but for the opinion of the appraiser. Nobody will enter into the transactions at a specific price unless the appraiser first says the price is OK.

And, if something goes wrong and there are losses to the plan because of a bad appraisal, the trustees typically do not file state-law claims against the appraiser to recover losses. The reasons this does not happen are two-fold.

First, the trustees as a rule are the people who signed off on the deal the appraiser provided an opinion on, such as an appraisal opinion of value or a fairness opinion saying the deal is fair. So if you think about it from a self-interest standpoint, the trustees probably feel like they are putting themselves in the crosshairs a bit if they sue the person who prepared the appraisal on which they relied.

That is, if they go after the appraiser they have to say, basically, you did a really bad job and I relied on your bad job and as a result the plan suffered losses. Because trustees are worried that the DOL and plan participants are then going to bring a lawsuit against them, trustees rarely bring actions against appraisers or other advisors.

Second, the language in the engagement agreements with the appraiser routinely disclaims much of the state law obligations they would otherwise have.

So, it might be that state law requires appraisers to adhere to a standard of care, but the engagement agreement will have all kinds of language about how the appraisers are only liable if they are grossly negligent or if they do really bad things and so on. So while there might be state law claims that the trustee could otherwise pursue, the appraisers have set it up so that they have contractual defenses.

20. Can you share any insight into whether you expect ESOP related litigation to increase, decrease, or remain the same over the next couple of years?

Well, I'm hoping that there is a concerted effort in the industry to raise the bar so that these ESOP lawsuits are not necessary. At the moment, unfortunately, we have more ESOP cases than I would like to see.

Summary

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Texas Supreme Court Clarifies its Position on Shareholder Oppression in *Ritchie v. Rupe* and *Cardiac Perfusion Services v. Hughes*

Samuel S. Nicholls

During June 2014, the Texas Supreme Court reversed two Texas appellate court decisions that had ruled in favor of minority shareholder oppression claimants. This discussion reviews the judicial decisions of Ritchie v. Rupe *and* Cardiac Perfusion Services v. Hughes, *both decided in June 2014 by the Texas Supreme Court. In both matters, the absence of a shareholder oppression statute in Texas required the litigants to pursue a legal claim—the Texas receivership statute. The language of that statute does not define "oppression," and the legislative intent of that statute appears to have been to remedy instances of extreme mismanagement or criminal activity. Relief under a breach of fiduciary duty claim was not available because neither a formal nor informal fiduciary relationship could be established. Although relief may have been justified in the interest of fairness and supported through common law, as were the opinions of the trial and appellate courts in these matters, the Texas Supreme Court relied on the state statute. In the absence of clear language within the Texas receivership statute supporting the allegedly oppressed minority shareholders, the Texas Supreme Court had no choice but to interpret legislative intent, and to remand.*

Of course, it is true that the words used, even in their literal sense, are the primary, and ordinarily the most reliable, source of interpreting the meaning of any writing . . . But it is one of the surest indexes of a mature and developed jurisprudence not to make a fortress out of the dictionary.

Judge Learned Hand[1]

Texas Supreme Court Jolts Shareholder Oppression: Will Shareholder Oppression Valuations Be Pressured?

Shareholder oppression statutes diverge across the various states. In Texas, the statutory waters are muddier than in most states. This is because the opinions of Texas trial and appellate courts have been at odds with the opinions of the Texas Supreme Court.

That judicial disparity may be resolved by the decision of the Texas Supreme Court in the matter of *Ritchie v. Rupe* ("*Ritchie*"), rendered on June 20, 2014. The *Ritchie* decision was followed by the decision on *Cardiac Perfusion Services v. Hughes* ("*Hughes*"), rendered on June 27, 2014. Both of these judicial decisions involved disputes arising out of transactions.

Until these recent judicial decisions, shareholder oppression in Texas was a murky realm of Texas jurisprudence. And, many practitioners of law awaited these Texas Supreme Court decisions with baited breath.

In Texas, as eventually determined by the Texas Supreme Court in *Ritchie*, the only statutory claim for shareholder oppression rests with the Texas rehabilitative receivership statute for corporations.[2]

That is, no specific shareholder oppression statute exists. And, prior decisions by other Texas courts have relied on either common law or on sections of the Texas Business Organizations Code that were written more for businesses that have been grossly mismanaged or whose management has engaged in illegal activity.

Texas trial and appellate courts have rendered many decisions in favor of plaintiff minority shareholders, including these two cases.[3]

Nonetheless, until the appeals of these two cases to the Texas Supreme Court, the Texas Supreme Court had never recognized oppression as a valid claim. In these two decisions, the Texas Supreme Court provided greater clarity on its position. The court declined to recognize a common-law cause of action for shareholder oppression in the cases it tried thus far. Instead, the court relied on the intent of the legislature when it enacted the Texas statute governing rehabilitative receivership.

This imbroglio, apparently the spawn of having to rely on a choice of law when few choices are available other than the receivership statute or a derivative suit, provokes several tangential debates over the repercussions for business valuation, dispute resolution, proactive forestalling of disputes through contracts, operating agreements, buy/sell agreements, and public policy in Texas insofar as the business climate is concerned.

Will These Rulings Affect Business Valuation and Corporate Finance in Texas?

What are the implications for determining the fair market value of a fractional ownership interest in a Texas business, considering that the relative lack of marketability and lack of control of a noncontrolling ownership interest in a privately held Texas entity may be more pronounced than in other states? This is because noncontrolling shareholders face more risk of shareholder oppression without statutory relief.

Would you, as a prospective buyer of a noncontrolling ownership interest in a Texas business, feel encouraged by these Texas Supreme Court rulings? If oppressed noncontrolling shareholders in Texas have scant chances for remedy, controlling shareholders may also be affected when requiring capital through an equity offering, as prospective buyers of noncontrolling interests may demand lower valuation pricing multiples in light of the risk of being a noncontrolling shareholder in Texas.

What Is the Future of Shareholder Oppression in Texas?

Will Texas legislature eventually draw from the Uniform Commercial Code (UCC) to clearly define what constitutes oppression? The UCC is not a statute. Rather, the UCC is a guideline to harmonize divergent state laws with respect to commerce. Notwithstanding any lack of an interstate nature of a dispute, the UCC offers sound business principles upon which states rely.

With respect to the decision in *Ritchie*, there is language within the decision of the Dallas Court of Appeals that sounds curiously similar to the language of the UCC "implied warranty of fitness." In the UCC, the absence of language within a contract does not excuse conduct that a counterparty would reasonably expect not to occur in a business transaction, an expectation on which the counterparty relied to make his or her decision to enter into the transaction.

Will the Texas Business Organizations Code be adapted to include language that draws from the "implied warranty of fitness" to accommodate myriad situations as manifest in prior shareholder oppression suits?

If judicial discretion through common law is to be shunned in the Texas legal system, should there not be better clarity by statute to accommodate the wide range of potential instances of shareholder oppression? Should not common practice serve as a guideline to what is considered to be a "reasonable expectation" for conduct by management that is not adverse to shareholders?

It is common practice for the management of a publicly traded corporation to meet with prospective purchasers of large blocks of shares, unless their intent is of an activist nature. Publicly traded companies conducting a capital raise will typically have so-called road shows. This procedure is not inscribed in law, but it is a common practice.

Ritchie v. Rupe

Overview

Ritchie v. Rupe, first filed during July 2006 in Texas, was eventually appealed to the Texas Supreme Court, which rendered its opinion on June 20, 2014.

In *Ritchie*, both the Texas trial court and the Dallas Court of Appeals held that the Rupe

Investment Corporation (RIC), specifically its controlling shareholders and management, acted oppressively towards Ann Caldwell Rupe, a noncontrolling shareholder of RIC. RIC refused to meet with prospective buyers of Ann Rupe's noncontrolling ownership interest.[4]

Lee Ritchie was president of RIC, a descendant of one of the founders, and he was the individual who had refused to meet with prospective buyers.

The Texas Supreme Court reversed the decision of the appellate court, neither recognizing common law nor finding that the word "oppressive," as inscribed in the Texas receivership statute, applied to the conduct manifest by management per the complaint. The case was remanded back to the appellate court to examine the merits of a "breach of fiduciary trust" claim.

Facts of the Matter

Three different family trusts collectively owned approximately 72 percent of the RIC voting stock. There was no shareholder voting agreement or buy/sell agreement. Buddy Rupe, Ann's husband, had placed his 18 percent interest in RIC in a trust for the benefit of Ann Rupe and their son, naming Ann Rupe as trustee.

Buddy Rupe died in 2002, and the other families that were shareholders allegedly acted in a hostile manner to Ann Rupe, who was Buddy's second wife.[5]

Ann Rupe asked the controlling owners if they would be willing to buy the trust's (Buddy's) 18 percent ownership stake. The controlling owners gave an unacceptable, lowball offer of $1 million, and Ann Rupe then pursued other buyers.

The RIC sales exceeded $150 million, and it had assets in excess of $50 million.[6]

The refusal by the controlling owners and management to meet with prospective buyers undermined her efforts to sell her ownership stake. It stands to reason that such behavior may spook a prospective buyer, should it serve as a preview to the treatment a noncontrolling shareholder could expect from the controlling owners and management.

Dallas Court of Appeals Rules in Favor of the Oppressed Minority Shareholder

In *Ritchie*, the Dallas Court of Appeals ruled that noncontrolling shareholder Ann Caldwell Rupe's claim of shareholder oppression was valid and deserving of remedy.

In reaching its decision,[7] the Dallas appellate panel applied *Davis v. Sheerin*, a 1988 Texas Court of Appeals decision that defined shareholder oppression and set precedent for future Texas cases. Certain words in that decision—"reasonable expectations," "wrongful conduct," and "fair dealing"[8]—weighed heavily in subsequent appellate decisions in Texas.

In *Ritchie*, shareholder oppression was defined by the Dallas Court of Appeals as follows:

> Texas courts have generally recognized two non-exclusive definitions for shareholder oppression: (1) majority shareholders' conduct that substantially defeats the minority's expectations that, objectively viewed were both reasonable under the circumstances and central to the minority shareholders' decision to join the venture; or (2) burdensome, harsh, or wrongful conduct; a lack of probity and fair dealing in the company's affairs to the prejudice of some members; or a visible departure from the standards of fair dealing and a violation of fair play on which each shareholder is entitled to rely.[9]

The Dallas Court of Appeals further turned to Texas Business Corporation Act Article 7.05 when considering the appropriateness of a buyout remedy.[10]

Article 7.05, later amended to Section 11.404 of Texas Statutes: "Appointment of Receiver to Rehabilitate Domestic Entity," outlines the conditions for receivership, which include "that the acts of the directors or those in control of the corporation are illegal, oppressive or fraudulent." As would apply to *Ritchie*, the word "oppressive" was the operative word.

The Texas receivership statute further states that:

> A receiver may be appointed for the assets and business of a corporation by the district court for the county in which the registered office of the corporation is located, whenever circumstances exist deemed by the court to require the appointment of a receiver to conserve the assets and business of the corporation and to avoid damage to parties at interest, but only if all other requirements of law are complied with and if all other remedies available either at law or in equity, including the appointment of a receiver for specific assets of the corporation, are determined by the court to be inadequate.[11]

The court, in its determination that a buyout was the proper remedy under the receivership statute,

considered the phrase of the receivership statute: "if all other remedies available either at law or in equity, including the appointment of a receiver for specific assets of the corporation, are determined by the court to be inadequate."

Apparently, the court interpreted this language as meaning that since the actions of management were not so egregious that receivership was required, then the converse of the word "inadequate" may be applied (as intended by the legislature) if other remedies are, indeed, adequate.

The Dallas Court of Appeals mostly agreed with the trial court's remedy, which was a buyout of the Ann Rupe ownership interest by RIC at fair market value ($7.3 million).[12]

The Court of Appeals disagreed with the trial court's decision not to discount the buyout price for lack of control or lack of marketability.[13]

The remedy was a buyout at fair market value discounted for relative lack of control and lack of marketability, due to the ownership interest being a noncontrolling interest of a privately held entity. Such a price discount is what a willing buyer, under no compulsion to purchase the noncontrolling interest, would expect, because a buyer would then be subject to the same liquidity constraints as *Ritchie*, and would offer a price reflecting those liquidity constraints.

Texas Supreme Court Reverses Court of Appeals Decision

Ritchie was appealed to the Texas Supreme Court, which issued its opinion on June 20, 2014. By a 6-3 vote, the court overruled the decision of the Dallas Court of Appeals.

The Texas Supreme Court did examine *Davis v. Sheerin*,[14] the outcome of which was the first Texas appellate court affirming a judgment whose building blocks were the words "oppressive actions" as appear within the receivership statute. The appellate court had justified its buyout remedy as follows: "Texas courts, under their general equity power, may decree a [buyout] in an appropriate case where less harsh remedies are inadequate to protect the rights of the parties."[15]

The trial court in *Ritchie* applied the "fair dealing" standard when instructing the jury as to what may constitute shareholder oppression. The fair dealing standard as recited by the *Davis* court is:

> An Oregon court's collection of oppression definitions, which included "'burdensome, harsh and wrongful conduct,' 'a lack of probity and fair dealing in the affairs of a company to the prejudice of some of its members,' or 'a visible departure from the standards of fair dealing, and a violation of fair play on which every shareholder who entrusts his money to a company is entitled to rely.'"

The Texas Supreme Court, however, began by noting that the legislature had never defined the term "oppressive" in the Business Corporations Act or the Business Organization Code.[16]

The court then examined dictionary definitions: "In the absence of a statutory definition, we give words their common meaning."[17]

The court then turned to *Black's Law Dictionary* and other references, a familiar refrain when ambiguity in statutes leaves no recourse. This position is reminiscent of *BMC Software, Inc. v. Commissioner of Internal Revenue*, where the U.S. Tax Court ruled on the definition of "debt" as relates to interparty indebtedness between a U.S. taxpayer and its foreign subsidiary.[18] The trusty *Black's Law Dictionary* was put to use in that venue as well.

The Texas Supreme Court ruled that no act of oppression occurred. This is because, absent a clear definition of "oppression," the court relied on the intent of the legislature when crafting the receivership statute. The conclusion was that the circumstances were not marked with the severity intended by the legislature to apply the receivership statute.

The Texas Supreme Court, in *Ritchie*, defined oppression as follows:

> Considering all of the indicators of the Legislature's intent, we conclude that a corporation's directors or managers engage in "oppressive" actions under former article 7.05 and section 11.404 when they abuse their authority over the corporation with the intent to harm the interests of one or more of the shareholders, in a manner that does not comport with the honest exercise of their business judgment, and by doing so create a serious risk of harm to the corporation.[19]

The ending of the statement, "by doing so create a serious risk of harm to the corporation," may suggest how the court interpreted the legislature's intent—that is, a high threshold needs to be crossed in order to trigger receivership.

In its majority opinion, the court expressed the importance of having comprehensive operating agreements and buy-sell agreements:

> Shareholders of closely held corporations may address and resolve such difficulties by

> entering into shareholder agreements that contain buy-sell, first refusal, or redemption provisions that reflect their mutual expectations and agreements. In the absence of such agreements, however, former article 7.05 authorizes the appointment of a receiver only for specific conduct—in this case, allegedly oppressive actions—and the conduct relied on by the court of appeals here does not meet that standard.[20]

The court concluded by remanding the case back to the appellate court to determine if relief is available under a breach of fiduciary duty claim, and if so, to remand back to trial court:

> Thus, if the court of appeals concludes that Rupe may recover on her breach-of-fiduciary-duty claim, and that the buyout order is available as a remedy, it will need to remand the case to the trial court for a redetermination of the value of Rupe's shares and whether the buyout is equitable in light of the newly determined value and the impact that a buyout at that price will have on RIC and its other shareholders.[21]

Why Did the Texas Supreme Court Rule the Way it Did?

The Texas receivership statute includes as a condition for receivership "illegal, oppressive, or fraudulent" actions by management. The Texas Supreme Court, in the absence of a definition of "oppressive," relied on the perceived intent of the legislature.

The Texas legislature, by conflating the word "oppressive" with "illegal" and "fraudulent," tinged the meaning of oppression with imagery of flagrant, dastardly deeds. Does this train of thought suggest that the legislature intended for the statute to apply only under dire circumstances, and for an ephemeral period until the business entity is on solid footing again? Or did the legislature simply intend to be vague, passing the baton to common law to add the detail?

Did the Texas Supreme Court Suggest That the Door Is Still Open for Common Law?

Although the court has never recognized a common-law cause of action for shareholder oppression, including in *Ritchie*, the decision discussed common law at length, seemingly suggesting that the door was left open for other forms of alleged oppression, yet sparingly and with a reliance on statutory law when possible.

In its majority opinion, the court listed a number of conditions requisite for a common-law cause of action, such as "the foreseeability, likelihood, and magnitude of the risk of injury,"[22] and discussed actions such as squeeze outs and freeze outs in the context of this condition for common-law application, concluding with:

> We thus conclude that the foreseeability, likelihood, and magnitude of harm sustained by minority shareholders due to the abuse of power by those in control of a closely held corporation is significant, and Texas law should ensure that remedies exist to appropriately address such harm when the underlying actions are wrongful.[23]

"The Texas legislature, by conflating the word 'oppressive' with 'illegal' and 'fraudulent,' tinged the meaning of oppression with imagery of flagrant, dastardly deeds."

The majority also pointed to statutory venues such as a derivative suit,[24] and penalties available for management's refusal to allow inspection of the books, under Texas Business Organization Codes 21.218, 21.219, and 21.220.[25]

Cardiac Perfusion Services v. Hughes

Overview

In *Cardiac Perfusion Services v. Hughes* ("*Hughes*"),[26] like *Ritchie*, both the Texas trial court and Dallas Court of Appeals ruled in favor of the allegedly oppressed minority shareholder, Hughes.

Both courts held that the buy/sell agreement between the two shareholders, valued at the Hughes pro rata share of book value, was nullified due to shareholder oppression, and determined that the Hughes ownership interest was to be bought out at fair market value, determined to be $300,000. The trial court also awarded Hughes prejudgment interest, postjudgment interest, and attorney's fees.

The appellate court upheld the trial court's remedies, including the absence of discounts for relative lack of control and lack of marketability. This differs from *Ritchie*, where the appellate court determined that the trial court had erred in not applying such valuation discounts.

In *Ritchie*, the oppressed minority shareholder was not forced to sell her shares through the oppressive conduct of the controlling owners and management. In *Hughes*, Hughes was forced to relinquish his ownership position by the oppressive conduct of the controlling owners.[27]

The case was appealed to the Texas Supreme Court which, on June 27, 2014, reversed the decision of the appellate court for a buyout of the noncontrolling interest at fair market value.

Facts of the Matter

Randall Hughes was hired by Michael Joubran to work at his company, Cardiac Perfusion Services (CPS), in 1991. In the following year, Hughes purchased a 10 percent ownership interest in the company for $25,000.[28]

CPS operates heart/lung machines during open heart surgery. As part of the transaction, a buy/sell agreement was executed whereby Joubran would be required to purchase the Hughes shares at book value should Hughes ever be terminated from employment.[29]

Joubran later terminated Hughes, sued Hughes for damages resulting from breach of fiduciary duty and tortious interference, and petitioned to enforce the buy/sell agreement. Hughes countersued claiming shareholder oppression.

The trial jury found in favor of Hughes regarding allegations that Hughes breached fiduciary duty and engaged in tortious interference. Regarding the Hughes claim of shareholder oppression, the trial jury agreed, finding that Joubran (1) suppressed payment of profit distributions to Hughes, (2) paid himself excessive compensation from the CPS corporate funds, (3) improperly paid his family members using CPS funds, (4) improperly used CPS funds to pay his personal expenses, (5) wrongfully used his control of CPS to lower the value of the Hughes stock, and (6) refused to let Hughes examine the CPS books and records.[30]

Although the trial court jury found there was no evidence of a fiduciary relationship, and hence no breach of fiduciary duty, the jury answered certain questions indicating that they believed there was a breach of fiduciary duty.[31]

Dallas Court of Appeals Rules in Favor of the Oppressed Minority Shareholder

What the Court Considered

The appellate court, in its opinion, cited *Davis* and *Ritchie* in determining the applicable law, pointing to the definitions of shareholder oppression as recognized by the Dallas Court of Appeals and other courts. The court considered the CPS and the Joubran argument that the trial court had erred in awarding Hughes fair market value rather than book value as agreed to in the buy/sell agreement.

CPS and Joubran relied on *Fortis Benefits v. Cantu*[32] primarily, as well as *Fortune Production Co. v. Conoco, Inc.,*[33] and *City of the Colony v. North Texas Municipal Water District*.[34]

Hughes relied on *Hayes v. Olmsted & Associates, Inc.*[35] *Hayes* was tried in Oregon, which CPS and Joubran argued rendered the citation irrelevant. Under Oregon law, those with a controlling ownership interest in a closely held corporation owe fiduciary duties to noncontrolling shareholders. In Texas, however, no such duty exists.

The Dallas Court of Appeals disagreed with CPS and Joubran, explaining that even if Texas and Oregon law differ as to claims for breach of fiduciary duty, the trial court found that there was shareholder oppression, and "like Oregon, Texas recognizes a cause of action for shareholder oppression."[36]

The appellate court further seemed to give weight to the impairment of book value through Joubran's excessive compensation as justification for not enforcing the buy/sell agreement. The argument was not one of a breach of contract, but rather shareholder oppression.[37]

Hughes argued a single issue on cross-appeal—the trial court erred when it declined to render judgment in his favor for breach of fiduciary duty.

The trial court jury had contradicted itself on its questionnaire, answering "no" as to whether a fiduciary duty existed between Joubran and Hughes, but answered "yes" as to whether Joubran had breached his fiduciary duties (the jury had been instructed not to answer that question unless they had answered "yes" as to whether a fiduciary relationship existed). The Dallas Court of Appeals disagreed, finding that no fiduciary relationship existed.

CPS and Joubran Raise an Issue with the Hughes Valuation Analyst

Hughes had retained a valuation analyst (the "Hughes analyst") to render a fair value opinion of the Hughes ownership interest. CPS and Joubran argued that (1) the Hughes analyst fair value "was not supported by a coherent measure of value," (2) the Hughes analyst testimony was conclusory and therefore legally insufficient, and (3) the Hughes analyst valuation opinion is wrong because it is based on an erroneous assumption that CPS is an S corporation.[38]

The first complaint (no support for the measure of value) gained no traction with the court. The court declined to evaluate the methodology of the Hughes analyst, and in the judicial opinion, did not explain why.

The second complaint (the Hughes analyst testimony was conclusory) was ruled in favor of Hughes. As noted by the court, opinions are considered conclusory if there is no basis or support offered for the analysts opinion, but its reliability can be challenged nonetheless if the objection is made early enough for the court to conduct an analysis.[39]

CPS and Joubran argued that the Hughes analyst (1) did not compare Joubran's compensation with companies as small as CPS or with Joubran's peers at similar companies, (2) CPS and Joubran disagreed with the Hughes analyst over whether Joubran's quarterly bonuses should be characterized as dividends, (3) the Hughes analyst did not describe his discounted cash flow analysis to the jury, and (4) the Hughes analyst failed to consider the controlling effect of the buy/sell agreement, the unstable nature of the CPS business, and the lack of goodwill attaching to the corporation itself, apart from the professional goodwill of either Joubran or Hughes.[40]

The court disagreed with the second complaint of CPS and Joubran because, it noted, the Hughes analyst "gave detailed testimony about his valuation opinions and the relevant facts supporting those opinions."[41]

Specifically, the Hughes analyst "identified three categories of questionable expenses: (1) salaries paid to Joubran's college-age children, (2) excessive compensation paid to Joubran, and (3) certain credit card charges."[42]

The court considered Hughes testimony that CPS did hot hire replacements for Joubran's children when they left the payroll, nor did it terminate any employees when they were hired, suggesting that their hiring was not requisite to operations.

The Hughes analyst also analyzed compensation data for the relevant field, and concluded that the appropriate salary range for Joubran was between $132,500 and $275,123. Joubran's actual salary averaged $775,000 from 2003 to 2007.

The Hughes analyst also analyzed the credit card charges, and found $64,000 that were not apparently legitimate business expenses. The Hughes analyst, in his fair value determination, made adjustments for these excesses.

The third complaint (the Hughes analyst valuation opinion is wrong because it is based on an erroneous assumption that CPS is an S corporation) was ruled in favor of Hughes. This was despite the fact that CPS was in fact a C corporation. The contention was that because of the differing tax treatment between S and C corporations, the Hughes analyst arrived at an incorrect valuation conclusion when he mistakenly thought CPS was an S corporation.

CPS and Joubran cited plaintiff's exhibits 30 through 33, which were the CPS Form 1120 federal income tax returns for the years 2005 to 2008.

The Hughes analyst acknowledged on the stand that he had seen the Forms 1120 S, but responded that (1) although he was a CPA, he did not prepare tax returns; (2) he had seen income tax forms previously over the course of his career that he would not have expected to be used; (3) the financial statements he was given showed profits but no tax provision, which he believed suggested that CPS was an S corporation; and (4) he did provide two fair value estimates under both the S corporation and C corporation scenario.

In dismissing the third complaint, the court gave weight to the fact that the Hughes analyst was given documentation that was misleading or conflicting (the internal financial statements showing no income tax despite there being a profit). The court also considered that the Hughes analyst presented the trial jury with two valuations under both the C corporation and S corporation scenario, the valuations of which were not far apart—$2,142,507 versus $2,189,996.

The Appellate Decision

The Dallas Court of Appeals affirmed the trial court's judgment.[43]

Texas Supreme Court Reverses in Part Court of Appeals Decision

Hughes was petitioned to the Texas Supreme Court by CPS and Joubran. In its *per curiam* decision issued on June 27, 2014, the court proceeded, with its third sentence of the opinion, to explain that it had already rejected a common-law cause of action in *Ritchie*.

The length of the opinion, five pages, also suggests that it felt no need to rehash its opinion as expressed in *Ritchie*. The court reversed in part, and affirmed in part, the judgment of the appellate court.[44]

The element of the case that was affirmed was that grievances warranted the case being remanded back to trial court.

The court reversed the appellate and trial court's remedy of a buyout. In articulating its opinion, the Texas Supreme Court began by noting that Texas law does not authorize the buy-out order as a remedy. In *Ritchie*, the court determined that a claim for shareholder oppression is only available under section

". . . will federal court rulings in Texas continue to mirror those of prior Texas appellate court decisions, or will they conform to the Texas Supreme Court decisions?"

11.404 of the Texas Business Organizations Code as relates to rehabilitative receivership, and that a common-law claim for shareholder oppression is not valid.[45]

The court did acknowledge that transgressions had occurred, but that the choice of law was faulty. The court remanded the matter to the trial court.[46] As the court wrote in Ritchie, there are "other existing legal protections" that could be pursued other than a common-law cause of action.[47] One such statute suggested by the court as more appropriate is a derivative action for breach of fiduciary duties under Section 21.563(c) of the Business Corporations Code.[48]

On the Heels of *Hughes* and *Ritchie*, How Will Federal Courts in Texas Rule?

In prior federal court cases in Texas, the federal courts have largely followed the lead of the state appellate courts.[49] These decisions were *In re Rosenbaum* and *Bulacher v. Enowa*, both in 2010.[50] *Bulacher* relied on *Willis*[51] and *Davis*[52] in considering a two-part definition of shareholder oppression.

In the future, will federal court rulings in Texas continue to mirror those of prior Texas appellate court decisions, or will they conform to the Texas Supreme Court decisions?

Conclusion

Absent the enactment of a shareholder oppression statute by the Texas legislature, it is apparent that relief to allegedly oppressed shareholders is confined largely to the receivership statute or a derivative action. In *Hughes*, even the trial jury determined that no fiduciary relationship existed. A derivative action is not necessarily a bad option.

Typically, in a shareholder derivative suit, the suit is brought by a shareholder on behalf of a shareholder, and the damages are awarded to the corporation. However, in Texas, a shareholder of a closely held corporation may seek damages for oneself.[53]

In conclusion, the following features of *Hughes* may serve as words to the wise when entering into a securities transaction:

- Hughes signed a bad buy/sell agreement. The price inscribed by contract was book value, not even a multiple of book value as is typically the method for a going-concern company with a value based on expected future cash flow exceeds break-up value.

  Furthermore, valuations based on book value are ordinarily applied only to companies within the financial sector, notably banks, because they engage in the carry trade. Also, certain real estate holding companies may be valued by adjusted net asset value, reflecting the current market value of the underlying assets.

  CPS was not a financial company. If Hughes and Joubran had disagreed on a valuation method when inking the contract, they could have stipulated that an independent valuation analyst would determine fair market value when the buy/sell agreement was triggered.

- A buy/sell agreement based on book value invites manipulation of cash flow by unscrupulous, controlling shareholders. It is conceivable, to use an extreme example for illustrative purposes, that a company could generate nearly zero growth in book value over 10 years, while generating robust growth in revenue and free cash flow.

  Conceivably and mathematically, a company could have a book value of only $1 million while generating over $100 million in revenue (a real world example with similar proportions is General Motors over the last 100 years).

  This result could be achieved simply through paying exorbitant salaries to the controlling shareholders who serve in management positions.

  Under that scenario, if the company, hypothetically, would fetch a valuation of 1x revenue to a willing buyer, it could be valued at $100 million under the guideline publicly traded company valuation method (the market approach), while being valued at $1 million if valued at 1x book value (the asset-based approach).

- The very nature of the buy/sell agreement, that the firing of Hughes would trigger the mandatory purchase by Joubran at book value, gave Joubran an incentive to fire

Joubran when the fair market value of CPS greatly exceeded its book value. Essentially, the buy/sell agreement was akin to a free stock option given to Joubran, with no expiration date.

The longer CPS remained in business and generating profits, the more compelling was the arbitrage opportunity for Joubran, which he could exercise simply by firing Hughes and immediately capturing the difference between book value and fair market value, multiplied by the percentage ownership of Hughes.

Notes:

1. Cabell v. Markham, 148 F.2d 737, 739 (CA. 2d, 1945).
2. Texas Business Organizations Code Section 11.404.
3. Ritchie v. Rupe, 339 S.W.3d 275 (Tex. App. 2011); Cardiac Perfusion Services v. Hughes, 380 S.W.3d 198 (Tex. App. 2012).
4. Ritchie v. Rupe, 339 S.W.3d 275.
5. Ritchie v. Rupe, 443 S.W.3d 856, 861 (Tex. 2014).
6. Id. at 862.
7. Ritchie v. Rupe, 339 S.W.3d at 294.
8. Davis v. Sheerin, 754 S.W.2d 375, 381-82 (Tex. App. 1988).
9. Ritchie v. Rupe, 339 S.W.3d at 289 (citing Willis v. Bydalek, 997 S.W.2d 798, 801; Redmon v. Griffith, 202 S.W.3d 225, 234; Pinnacle Data Servs., Inc. v. Gillen, 104 S.W.3d 188, 196).
10. Ritchie v. Rupe, 339 S.W.3d at 285.
11. Texas Business Corporation Act, Article 7.05, later amended to Section 11.404 of Texas Statutes – "Appointment of Receiver to Rehabilitate Domestic Entity."
12. Ritchie v. Rupe, 443 S.W.3d at 863.
13. Ritchie v. Rupe, 339 S.W.3d at 301.
14. Davis v. Sheerin, 754 S.W.2d 375.
15. Davis v. Sheerin, 754 S.W.2d at 380.
16. http://www.statutes.legis.state.tx.us/?link=BO.
17. Ritchie v. Rupe, 443 S.W.3d at 866.
18. 141 T.C. No. 5 (2013).
19. Ritchie v. Rupe, 443 S.W.3d at 871.
20. Id.
21. Id. at 892.
22. Id. at 878.
23. Id. at 879.
24. Id. at 880.
25. Id. at 897.
26. Cardiac Perfusion Services v. Hughes, 380 S.W.3d 198.
27. Id. at 204.
28. Id. at 200.
29. Id.
30. Cardiac Perfusion Services v. Hughes, 436 S.W.3d 790, 791 (Tex. 2014).
31. Cardiac Perfusion Services v. Hughes, 380 S.W.3d 198.
32. Fortis Benefits v. Cantu, 234 S.W.3d 642 (Tex. 2007).
33. Fortune Production Co. v. Conoco, Inc., 52 S.W.3d 671 (Tex. 2000).
34. City of the Colony v. North Texas Municipal Water District, 272 S.W.3d 699 (Tex. App. 2008).
35. Hayes v. Olmsted & Associates, Inc., 173 Or.App. 259, 21 P.3d 178 (2001).
36. Cardiac Perfusion Services v. Hughes, 380 S.W.3d at 204.
37. Id.
38. Id. at 205.
39. Id.
40. Id.
41. Id.
42. Id. at 207.
43. Id. at 198.
44. Cardiac Perfusion Services v. Hughes, 436 S.W.3d 790.
45. Id. at 791.
46. Id.
47. Id.
48. Id.
49. Paul R. Genender, "Minority Shareholder Oppression in Texas: Current Developments and Considerations," presentation to the 2014 Conference on Securities Regulation and Business Law, February 13–14, 2014, Dallas, Texas: 13.
50. Ibid.: 13–15.
51. Willis v. Bydalek, 997 S.W. 2d (Tex. App. 1999).
52. Davis v. Sheerin, 754 S.W.2d 375.
53. Texas Business Corporation Act, Article 5.14 (Derivative Proceedings), section L.

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Attributes That Influence Intellectual Property Value

Robert F. Reilly, CPA

Financial advisers are often asked to analyze an owner/operator's intellectual property. The financial adviser may be asked to perform this analysis for transaction (sale or license) purposes, financing (collateral value) purposes, taxation (income, gift and estate, or property tax) purposes, financial accounting (fair value determination) purposes, corporate governance and strategic planning (management stewardship and commercialization opportunity) purposes, and litigation (tort claim and breach of contract claim) purposes. The financial adviser may be asked to conclude a defined value, exchange ratio, license royalty rate, intercompany transfer price, or economic damages measurement for the intellectual property. This discussion considers the attributes that may influence the financial adviser's intellectual property value conclusion.

Financial advisers are often asked to value an owner/operator's intellectual property (IP) for various litigation-related reasons. These valuation reasons may include breach of contract claims (including breach of development, commercialization, license, or joint venture agreements) and tort claims (including infringement, tortious interference with business opportunity, or breach of fiduciary duty claims).

These litigation-related reasons why the financial adviser may value IP may also include taxation disputes (including gift and estate tax, income tax, and property tax conflicts) and bankruptcy disputes (including creditor protection matters, solvency and insolvency claims, and reasonably equivalent value issues).

In addition, the financial adviser may be asked to value the owner/operator's IP for various transaction, taxation, financing, financial accounting, or corporate governance purposes.

This discussion summarizes many of the qualitative factors that the financial adviser will consider in the IP valuation process.

Depending on the owner/operator's assignment, the adviser may define the term IP broadly to include both:

1. patents, trademarks, copyrights, and trade secrets and
2. associated intangible assets.

Such IP typically creates proprietary knowledge and processes for the corporate owner/operator. This proprietary knowledge or process may be either developed by or purchased by the corporate owner/operator. In order for the financial adviser to quantify the IP value, the IP should provide, or have the potential to provide, a competitive advantage or a product differentiation.

Types of Intellectual Property

For the various litigation and other reasons mentioned above, the financial adviser may be asked to value the following types of IP:

- Patents
- Patent applications
- Patentable inventions
- Trade secrets

- Know-how
- Proprietary processes
- Proprietary product recipes or formulae
- Confidential information
- Copyrights on technical materials such as computer software, technical manuals, and automated databases
- Trademarks, trade names, service marks, service names, trade dress
- Domain names

This discussion summarizes the financial adviser's qualitative valuation considerations. These considerations are relevant either when the client owns the subject IP or inbound/outbound licenses the subject IP.

Understanding the Subject Intellectual Property Attributes

Before performing any quantitative valuation procedures, the financial adviser typically endeavors to understand the attributes of the subject IP.

The financial adviser may qualitatively assess the subject IP attributes by considering the following questions:

1. What are the property rights related to the IP? What are the functional attributes of the IP?
2. What are the operational or economic benefits of the IP to its current owner/operator? Will those operational or economic benefits be any different if the IP is in the hands of a third-party owner/operator?
3. What is the current utility of the IP? How will this utility change in response to changes in the relevant market conditions? How will this utility change over time? What industry, competitive, economic, or technological factors will cause the IP utility to change over time?
4. Is the IP typically owned or operated as a stand-alone asset? Or is the IP typically owned or operated as (a) part of a bundle with other tangible assets or intangible assets or (b) part of a going-concern business enterprise?
5. Does the IP utility (however measured) depend on the operation of tangible assets or other intangible assets or the operation of a business enterprise?
6. What is the IP highest and best use (HABU)?
7. How does the IP affect the income of the owner/operator? This inquiry may include consideration of all aspects of the owner/operator's revenue, expense, and investments.
8. How does the IP affect the risk (both operational risk and financial risk) of the owner/operator?
9. How does the IP affect the competitive strengths, weaknesses, opportunities, and threats of the owner/operator?
10. Where does the IP fall within its own life cycle, the overall life cycle of the owner/operator, the life cycle of the owner/operator industry, and the technology life cycle of both competing IP and substitute IP?

Such inquiries often provide the financial adviser with a starting point for understanding (1) the use and function of the subject IP and (2) the attributes that create IP value. This understanding allows the financial adviser to select the appropriate IP valuation approaches, methods, and procedures.

Factors That Influence the Intellectual Property Value

Numerous factors may affect the subject IP value. Industry, product, and service considerations may provide a wide range of positive and negative influences on the IP value. To the extent possible, the financial adviser will qualitatively or quantitatively consider each of these influence.

Table 1 presents some of the attributes that the financial adviser normally considers in the IP valuation process. In addition, Table 1 indicates how these attributes may influence the subject IP value.

Not all of the Table 1 attributes apply to the valuation of every IP, and each attribute may not have an equal influence on the IP value. However, the financial adviser will typically consider each of these attributes as part of the IP valuation analysis.

Table 1
Attributes That May Influence Intellectual Property Value

IP R Item	Attributes	Influence on the Subject Intellectual Property Value	
		Positive	Negative
1	Age—absolute	Newly created, state-of-the-art IP	Long-established, dated IP
2	Age—relative	Newer than competing IP	Older than competing IP
3	Use—consistency	IP proven or used consistently on products and services	IP unproven or used inconsistently on products and services
4	Use—specificity	IP can be used on a broad range of products and services	IP can be used only on a narrow range of products and services
5	Use—industry	IP can be used in a wide range of industries	IP can be used only in a narrow range of industries
6	Potential for expansion	Unrestricted ability to use IP on new or different products and services	Restricted ability to use IP on new or different products and services
7	Potential for exploitation	Unrestricted ability to license IP into new industries and uses	Restricted ability to license IP into new industries and uses
8	Proven use	IP has proven application	IP does not have proven application
9	Proven exploitation	IP has been commercially licensed	IP has not been commercially licensed
10	Profitability—absolute	Profit margins or investment returns on related products and services higher than industry average	Profit margins or investment returns on related products and services lower than industry average
11	Profitability—relative	Profit margins or investment returns on related products and services higher than competing IP	Profit margins or investment returns on related products and services lower than competing IP
12	Expense of continued development	Low cost to maintain the IP as start-of-the-art	High cost to maintain the IP as start-of-the-art
13	Expense of commercialization	Low cost of bringing IP to commercial exploitation	High cost of bringing IP to commercial exploitation
14	Means of commercialization	Numerous means available to commercialize the IP	Few means available to commercialize IP
15	Market share—absolute market share	Products and services using the IP have high market share	Products and services using the IP have low market share
16	Market share—relative to competing IP	Products and services using the IP have higher share than competing IP	Products and services using the IP have lower market share than competing IP
17	Market potential—absolute	Products and services using the IP are in an expanding market	Products and services using the IP are in a contracting market
18	Market potential—relative	Market for products and services using IP expanding faster than competing IP	Market for products and services using IP expanding slower than competing IP
19	Competition	Little or no competition for the IP	Considerable established competition for the IP
20	Perceived demand	Perceived currently unfilled need for the IP	Little or no perceived need for the IP

The financial adviser may document each attribute separately in the IP valuation analysis working papers, or the financial adviser may assess these attributes collectively as one component of the IP valuation analysis.

Such considerations allow the financial adviser to assess the influence of these attributes, either positive or negative, on the subject IP value.

Some of the other factors that the financial adviser normally considers in the valuation process include the following:

1. The legal rights associated with the subject IP
2. The industry in which the IP is used
3. The economic characteristics of the IP
4. The reliance of the IP owner/operator on tangible assets or other intangible assets, and
5. The expected impact of regulatory policies or other external factors on the commercial viability or marketability of the subject IP.

Summary

Financial advisers are often asked to value an owner/operator's IP for various litigation or other controversy-related purposes. In addition, the financial adviser may be asked to value the owner/operator's IP for various transaction, taxation, financing, or other purposes.

In such instances, the financial adviser will consider the purpose of the owner/operator's valuation assignment as well as the relevant factors specific to the subject IP. In such valuation assignments, the financial adviser will perform these qualitative procedures before performing the quantitative valuation analyses.

This discussion considered the types of IP that may be analyzed, the typical attributes of the IP, and the typical factors that the financial adviser evaluates when assessing IP value.

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Solvency Opinion Scenario Analysis

continued from page 37

with his client, but also convinced other relationship managers to leave the company resulting in a 50 percent revenue decrease.

As mentioned in the definition, a stress test could also consist of a combination of factors. These are risks that the financial adviser should discuss with management in order to understand any contingency plans that could mitigate the impact on the debtor company operations.

Summary

When performing the cash flow test, the financial adviser may draw on the information obtained from performing projection reasonableness and other due diligence to develop meaningful scenarios.

The financial adviser may also include sensitivities of the selected scenarios in order to develop a robust cash flow analysis. The closer the debtor company is to being distressed prior to the execution of the transaction and the more leveraged the transaction, the more scenarios and sensitivities may be considered.

Stress testing may be informative for users of the solvency opinion as it helps to define the level of financial and operational stress the debtor company can endure. It also provides information regarding the effectiveness of contingency plans and mitigating factors in extremely unlikely yet plausible scenarios.

The use of various scenarios, sensitivities, and stress tests ensure that the cash flow test is a reliable component of the solvency analysis, so that the opinion can withstand a contrarian review.

The scenario analysis can be an effective risk management tool that helps to clarify the level of risk being assumed in connection with proposed leveraged corporate transactions.

Notes:

1. *Stress Testing and Scenario Analysis* (Ottawa, Canada: International Actuarial Association, July 2013), 3.
2. Ibid., 12–16.
3. Ibid., 4.
4. Ibid.

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On Our Web Site

Recent Articles and Presentations

Robert Reilly, a managing director of our firm, participated in a panel discussion at the 39th Annual Alexander L. Paskay Memorial Bankruptcy Seminar, sponsored by the American Bankruptcy Institute. The Paskay Seminar was held March 5–6, 2015, in Tampa, Florida. Robert's topic was "Intellectual Property and Insolvency Issues: Valuation of Intellectual Property within a Bankruptcy Context."

Robert's presentation explored the various types of intellectual property assets and common reasons why analysts are asked to value intellectual property. He then described and illustrated generally accepted approaches and methods for valuing intellectual property. Robert also provided common data sources and due diligence procedures related to an intellectual property valuation.

Robert Reilly presented at webinar on the topic of "Valuation and Allocation of Intangible Assets—Methodology. This webinar was held on January 22, 2015, and it was sponsored by the Institute for Professionals in Taxation.

Robert's presentation explored the identification of intangible assets. He discussed the various reasons that intangible assets are valued and examined the various approaches and methods for such a valuation. Robert also discussed methodology for extracting intangible asset value from the total property value in an ad valorem property tax engagement.

John Ramirez, senior associate, Aaron Rotkowski, manager, and Irina Borushko, associate, all from our Portland office, authored an article that was published in the January/February 2015 issue of *Valuation Strategies*, a bimonthly publication of Warren, Gorham & Lamont. The title of the article is "Seller Representations in Acquisition Agreements."

Their article examines this infrequently discussed, but important, component of nearly every merger and acquisition transaction. the various reasons to value intellectual property. They discuss the purpose of such representations. They also review the effect of seller misrepresentations on the purchase price.

Robert Reilly, along with William Sigler of Maddin Hauser Roth & Heller and Louis Vlahos of Farrell Fritz, presented a webinar on the topic, "Goodwill in Corporate Asset Sales: Maximizing Tax Planning Opportunities." This webinar presentation was delivered on September 23, 2014. The webinar was sponsored and produced by Strafford Publications, Inc.

Robert's portion of the presentation was on the topic of valuation and negotiation of seller's personal goodwill. He discussed the types of a business seller's personal assets and common instances where we find seller's personal goodwill in the sale of a closely held business. Robert also explored the components of seller's personal goodwill. He reviewed the generally accepted valuation approaches and methods and focused on the application of the three generally accepted approaches to the valuation of seller's goodwill.

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Communiqué

In Print

Robert Reilly, firm managing director, authored an article that appeared in the January 2015 issue of *Transaction Advisors*. The title of Robert's article was "Goodwill Valuation for Transaction Pricing and Structuring Purposes."

Robert Reilly also authored an article that appeared in the Volume 1 2015 issue of *National Litigation Consultant's Review* publication. The title of Robert's article was "License or Permit Intangible Asset Analyses."

Robert Reilly also authored an article that appeared in the January 2015 issue of the *ABI Journal*. The title of Robert's article was "Customer Intangible Asset Valuation."

Robert Reilly also authored an article that appeared in the Fourth Quarter 2014 issue of *Business Appraisal Practice*. The title of Robert's article was "Engineering Intangible Asset Appraisal Procedures."

Tim Meinhart, Chicago office managing director, co-authored an article with Heidi Walker of Meyers, Harrison & Pia, that appeared in the January 2015 issue of *Trusts & Estates*. The title of Tim's article, was "A Busy Year to Valuation Decisions." Tim is also on the editorial staff of *Trusts & Estates* magazine.

Sam Nicholls, Atlanta office senior associate, authored an article that appeared in the January 2015 issue of *Trusts & Estates*. The title of Sam's article was "The Valuation Analyst's Role in U.S. Tax Court Trials."

John Ramirez, senior associate, Aaron Rotkowski, manager, and Irina Borushko, associate, all from our Portland, Oregon, practice office, co-authored an article that appeared in the January/February 2015 issue of *Valuation Strategies*. The title of their article was "Seller Representations in Acquisition Agreements."

Chip Brown, Atlanta office managing director, and Justin Nielsen, Portland office manager, contributed to the National Center for Employee Ownership (NCEO) latest *Issue Brief* in December 2014.

The title's of Chip's three NCEO *Issue Brief* articles were "Q&A with Tim Hauser of the U.S. Department of Labor," "General Valuation Factors ERISA Counsel May Consider in an ESOP Litigation Case," and "Crossfire: The Debate over the Consideration of the Fair Market Value of Seller Notes Used to Pay for Sponsor Company Stock."

Chip also co-authored an NCEO *Issue Brief* article with Justin Nielsen entitled "Development and Application of Company Management-Prepared Projections in an ESOP Valuation."

In Person

Robert Reilly delivered a 90-minute webinar presentation for the Institute for Professionals in Taxation on January 22, 2015. The topic of Robert's presentation was "Valuation and Allocation of Intangible Assets—Methodology."

Robert Reilly also delivered a presentation at the 29th Annual Alexander L. Paskay Memorial Bankruptcy Seminar held in Tampa, Florida, and sponsored by the American Bankruptcy Institute. The topic of Robert's presentation was "Valuation of Business, Securities, and Intangible Assets for Bankruptcy Purposes."

Robert Reilly will deliver two presentations at the 45th Annual Appraisal for Ad Valorem Taxation Conference held at Wichita State University. The conference will be held during the last week of July. The first presentation is titled "Intangible Asset Identification and Valuation—A Case Study." The second presentation is titled "Extracting Intangible Asset Value from the Taxpayer Total Unit Value."

Aaron Rotkowski, Portland office manager, will also deliver a presentation at the 45th Annual Appraisal for Ad Valorem Taxation Conference at Wichita State University in July. The title of Aaron's presentation is "Estimating the Expected Long-Term Growth Rate When Applying the DCF Method for Property Tax Valuation."

Robert Reilly will also deliver a presentation at the National Association for Certified Valuators and Analysts (NACVA) 2015 annual consultants conference in New Orleans in June. The topic of Robert's presentation will be "Valuation of Business, Securities, and Intangible Assets for Bankruptcy Purposes."

Kevin Zanni, Chicago office manager, will also deliver a presentation at the NACVA 2015 conference. The topic of Kevin's presentation will be "Step-by-Step Guide to Applying Quantitative Method to Support the Discount for Lack of Marketability Selection."

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