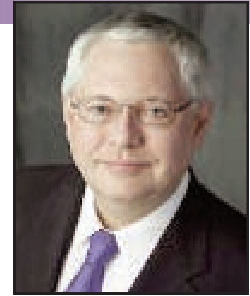
The Fair Value Valuation of Intangible Assets for Acquisition Accounting Controversy Purposes – Part 1



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INTRODUCTION

Regulatory agencies, investors, and other parties are focusing renewed attention on corporate acquirers' accounting for business combinations. Under U.S. generally accepted accounting principles (GAAP), such accounting guidance is provided by the Financial Accounting Standards-Board (FASB) Accounting Standards Codification (ASC) topic 805, *Business Combinations*. Under ASC 805, the corporate acquirer accounts for a business combination under what is called the acquisition method of accounting. Experienced valuation analysts (analysts) may recall the now-obsolete GAAP term "purchase method" of accounting. The FASB changed the previous terminology "purchase method" (and the FASB also changed many of the technical accounting procedures) to the current terminology "acquisition method" several years ago. The reason for this terminology change was to emphasize that, under ASC 805, a business combination transaction can occur even when a merger or acquisition purchase transaction is not involved.

Controversies often arise over the reporting entity/acquirer's accounting for the business combination. For acquirers that issue audited financial statements, auditors may challenge the reporting entity with regard to the technical application and the disclosure requirements of ASC 805. For example, auditors may challenge the acquirer on the income tax implications of the ASC 805 business combination accounting. This discussion focuses on both regulatory agency challenges and shareholder/investor claims with regard to the acquirer's application of the ASC 805 business combination accounting.

Most regulatory agency and shareholder litigation claims related to business combinations involve the identification of—and the fair value valuation of—the acquired assets and liabilities. Many of these controversies relate to the identification and valuation of intangible assets, including limited-life identifiable intangible assets, indefinite-life identifiable intangible assets, and goodwill. Fewer controversies seem to result from the acquirer's accounting for the purchased financial asset accounts (e.g., cash, receivables, and inventory), plant and equipment assets (e.g., land, buildings, and equipment), or liability accounts (e.g., bonds, notes, and mortgages payable). Presumably, such non-intangible-asset accounts are easier to identify—and easier to value—in the business combination.

Many business combination acquisition method issues involve these related topics: (1) the acquisition date fair value (ADFV) valuation of the acquired intangible assets (including goodwill), (2) the amount of the periodic cost recovery amortization expense related to the amortizable intangible assets (the amortization period for these assets is determined by the guidance of ASC topic 350 (*Intangibles – Goodwill and Other*)), and (3) the periodic impairment testing of indefinite life intangible assets and goodwill (the guidance for this testing is also provided in ASC 350).

CONTROVERSY ISSUES

The issues raised by a regulatory challenge of the reporting entity's intangible purchase accounting may include:

1. Is the acquirer misrepresenting the fair value of the purchased tangible assets versus the purchased intangible assets?
2. Is the acquirer misrepresenting the fair value of the purchased identifiable intangible assets versus the residual goodwill amount?
3. Is the acquirer misrepresenting its income due to a gain from an alleged bargain purchase?
4. Is the acquirer misrepresenting its income due to the misstatement of amortization expense related to the limited-life intangible assets?
5. Is the acquirer misrepresenting its income due to the misstatement of impairment charges related to indefinite-lived intangible assets or goodwill?

Usually, the Securities and Exchange Commission (SEC) is the regulator that challenges the acquirer's acquisition method accounting. The SEC is primarily interested in public reporting entities (which include closely held companies or subsidiaries that have public debt instruments). The SEC allegations typically relate to accounting fraud and misrepresentation

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Investors in public company acquirers have litigated against the reporting entity. These claims often result after the company's stock price has declined.

and/or violations of the federal securities statutes and regulations.

Investors in public company acquirers have litigated against the reporting entity. These claims often result after the company's stock price has declined. In particular, these claims often occur when the company's stock price declined after the quarterly or annual reporting of an acquired intangible asset impairment charge. The shareholder plaintiff claims may often include:

1. accounting fraud and misrepresentation and
2. fraud against the marketplace.

The shareholder plaintiff allegations may often include:

1. I would not have bought that stock (or paid that price) if I did not believe the acquired company owned valuable identifiable intangible assets.
2. I would not have bought that stock (or paid that price) if I had known that the acquirer company overpaid for its recent acquisition (or paid such a large amount for unexplained goodwill).
3. I would not have bought that stock (or paid that price) if I had known that the acquirer company would record such a large impairment loss shortly after my stock purchase.
4. I would have waited to buy that stock until after the acquirer company reported the impairment loss—and after the resulting stock price decrease—and, therefore, I would have avoided the loss on my investment.

Even investors in private companies have litigated against the nonpublic acquirer entities. Their litigation claims often relate to allegations of shareholder oppression under state securities statutes and state corporation statutes. These litigation claims are typically made after the private company acquirer (1) restates its financial statements (related to the fair value of acquired assets) or (2) records an impairment charge related to the fair value of acquired tangible assets, intangible assets, or goodwill. The plaintiff shareholders may often claim that: I would not have become a shareholder in the close corporation—or I would not have remained a shareholder in the close corporation—if I had known that the company's balance sheet and/or income statement were misstated with regard to the acquisition accounting of the purchased intangible assets.

DISCUSSION TOPICS

ASC topic 805 contains six primary subtopics:

1. ASC 805-10 *Overall* (general acquisition method guidance)
2. ASC 805-20 *Identifiable Assets and Liabilities, and Any Noncontrolling Interests*
3. ASC 805-30 *Goodwill or Gain from Bargain Purchase, including Consideration Transferred*
4. ASC 805-40 *Reverse Acquisitions*
5. ASC 805-50 *Related Issues* (including asset acquisitions and transactions between controlled entities)
6. ASC 805-740 *Income Taxes*

This discussion focuses on the acquisition accounting provisions related to identifiable assets, and, in particular, to identifiable intangible assets. In regulatory and/or shareholder disputes related to an acquirer's acquisition accounting, an analyst is often retained by legal counsel to opine on these issues:

1. What are (or what are not) identifiable intangible assets?
2. What identifiable intangible assets did the acquirer purchase?
3. What is the acquisition date fair value of the acquired intangible assets?
4. What factors affect the fair value of (or the impairment of) the acquired intangible assets?
5. When (and in what amount) should the acquirer recognize an impairment loss related to the acquired intangible assets?
6. What is the acquirer's correct acquisition accounting purchase price allocation for the subject business combination?

This discussion focuses on the above issues from the perspective of an analyst retained to address the intangible asset fair value valuation issues in an acquisition accounting regulatory challenge or shareholder dispute.

WHAT IS AN INTANGIBLE ASSET?

Often, the first issue in an ASC 805 acquisition is the identification of the acquired intangible assets. Typically, it is relatively easy for the analyst to identify the acquired financial assets and tangible assets. The *financial assets* are recorded on the target company financial statements. And, the analyst can physically see the target company real estate and tangible personal property. In contrast, the *acquired intangible assets* are typically not recorded on the target company financial statements. And, the analyst often has to search for the physical manifestation (e.g., a contract or a license or a listing) of the acquired intangible assets.

Also, even the acquirer company management may not be sure of exactly what target company intangible assets were acquired. In fact, many acquirer company executives (and target company executives) may not be sure of exactly what an intangible asset is. Analysts may use the following criteria to help identify the acquired intangible assets in a business combination: (1) it should be an asset and (2) it should be intangible. So, how does the analyst apply these two obvious criteria? First, the FASB Statement of Financial Accounting Concepts No. 6 (CON 6) *Elements of Financial Statements,* provides guidance on what is an asset:

1. An asset must provide probable future economic benefits
2. The owner/operator must be able to receive the benefit of the asset and restrict others from access to that benefit

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3. The event that provides the right to receive the benefit from the asset has already occurred

Second, the word "intangible" means something that lacks physical substance. For an intangible asset, the intangible criterion means that the economic benefit of the asset does not come from its physical substance. Rather, the intangible asset value is based on the rights and privileges to which that intangible asset entitles the owner/operator.

INTANGIBLE ASSET ATTRIBUTES

In the identification of acquired assets for acquisition accounting purposes, the analyst may consider that an intangible asset should have the following attributes:

- It is subject to a specific identification and a recognizable description.
- It is subject to legal existence and legal protection.
- It is subject to the rights of private ownership, and that private ownership should be legally transferable.
- There is some tangible evidence or tangible manifestation of the existence of the intangible asset.
- It was created or it came into existence at an identifiable time or as the result of an identifiable event.
- It is subject to being destroyed or to a termination of its existence at an identifiable time or as the result of an identifiable event.
- There should be a specific bundle of legal rights associated with the intangible asset.

As explained below, the attribute that the intangible asset ownership should be transferable should not be confused with the requirement that the intangible asset should be able to be sold separately or independently from any of the other target company assets. There is no "sold separately from other assets" criterion for the recognition of an identifiable intangible asset under ASC 805. In fact, the ASC 805-20-55-2 separability criterion (described next) specifically allows for the intangible asset ownership interest to be transferred (1) with another asset—tangible or intangible—or (2) with a liability.

IDENTIFIABLE INTANGIBLE ASSETS

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

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

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

These two criteria for identifiable intangible assets are called (1) the separability criterion and (2) the legal/contractual criterion.

CATEGORIES OF IDENTIFIABLE INTANGIBLE ASSETS

ASC 805-20-55 provides a list of intangible assets that the FASB considers to have the characteristics to meet at least one of the two above-listed criteria to be an identifiable intangible asset. The following list presents the ASC 805-20-55-13 categories of identifiable intangible assets:

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

According to ASC 805, goodwill is also an intangible asset. However, the FASB has determined that goodwill is not considered an identifiable intangible asset.

Marketing-related Intangible Assets

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

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

Customer-related Intangible Assets

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

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

Artistic-related Intangible Assets

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

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

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Contract-related Intangible Assets

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

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

Technology-related Intangible Assets

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

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

WHAT IS NOT AN INTANGIBLE ASSET?

Analysts should be aware that there are intangible attributes or intangible influences that may affect the fair value of the intangible assets. However, these attributes or influences are not, themselves, assets.

These attributes or influences may explain the reasons why the acquirer company purchased the target company. And, acquirer company executives may even believe that these attributes or influences are, in fact, intangible assets. However, the analyst should be aware that these otherwise valid reasons for consummating the corporate acquisition do not meet the above-described CON 6 criteria for recognition as an asset.

Examples of intangible attributes or intangible influences—that do not qualify as intangible assets—include:

- High market share
- High profitability or high profit margin
- Lack of regulation
- A regulated (or protected) position
- Monopoly position (or barriers to entry)
- Market potential
- Breadth of customer appeal
- Mystique
- Heritage
- Competitive edge
- Life-cycle status
- Uniqueness
- Discount prices (or full prices)
- Positive image
- First to market
- Technological superiority
- Consumer confidence or trustworthiness
- Creativity
- High growth rate
- High return on investment
- Size
- Synergies
- Economies of scale
- Efficiencies
- Longevity

DIFFERENCES BETWEEN TANGIBLE ASSETS AND INTANGIBLE ASSETS

The tangible elements of an intangible asset (e.g., a listing of the computer software source code) do not convert that intangible asset into a tangible asset. The analyst should realize that the important economic difference between a tangible asset and an intangible asset is this:

- The value of a tangible asset is derived from its tangible nature, while
- the value of an intangible asset is derived from its intangible nature.

That is, the value of a tangible asset comes from the owner's use of the physical elements of the asset. The value of an intangible asset comes from the legal or contractual rights associated with the ownership of the intangible asset.

FAIR VALUE GUIDANCE RELATED TO INTANGIBLE ASSET (AND OTHER) VALUATION

A discussion of all of the GAAP guidance related to fair value accounting and valuation is way beyond the scope of this discussion. This discussion relates exclusively to the valuation of intangible assets within a business combination transaction for acquisition accounting purposes. However, analysts who practice in the fair value valuation discipline (and particularly analysts who perform or review fair value valuations for forensic or litigation support purposes) should be generally familiar with the following GAAP guidance:

- FASB ASC topic 820 *Fair Value Measurement*
- FASB ASC topic 805 *Business Combinations*
- FASB ASC topic 350 *Intangibles – Goodwill and Other*
- FASB ASC topic 360 *Plant, Property, and Equipment*
- FASB ASC topic 718 *Compensation – Stock Compensation*
- FASB ASC topic 852 *Reorganizations*

OTHER NONAUTHORITATIVE GUIDANCE RELATED TO INTANGIBLE ASSET VALUATION

Three valuation professional organizations (VPOs) have developed a new professional credential related to valuations performed for GAAP-related fair value accounting compliance purposes. These three VPOs are the American Institute of Certified Public Accountants (AICPA), the American Society of Appraisers (ASA), and the Royal Institute of Chartered Surveyors (RICS). The name of the new fair-value-related valuation credential is Certified in Entity and Intangible Valuations (CEIV). A discussion of the CEIV credential program is beyond the scope of this discussion. However, analysts who practice in the fair value

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valuation discipline (and particularly analysts who perform or review fair value valuations for forensic or litigation support purposes) should become familiar with the requirements for the CEIV credential.

The three VPOs have also issued nonauthoritative guidance related to the fair value valuation of intangible assets for GAAP compliance purposes. This nonauthoritative guidance is an integral part of the training and the testing related to the CEIV credential program. In fact, CEIV credential holders are required to comply with the provisions of this professional guidance. In addition, the three VPOs recommend that the provisions of this professional guidance be considered as best practices for all fair-value-related valuations. Therefore, even analysts who practice in the fair value discipline but who are not CEIV credential holders should be familiar with this guidance. The two sets of nonauthoritative professional guidance issued by the three VPOs follow:

- Mandatory Performance Framework (MPF) for the Certified in Entity and Intangible Valuations Credential
- Application of the Mandatory Performance Framework (AMPF) for the Certified in Entity and Intangible Valuations Credential

Again, a discussion of the specific contents of the MPF and the AMPF are beyond the scope of this discussion. Copies of both the MPF and the AMPF are available from any of the three VPOs. Analysts who perform or review fair value valuations will want to become familiar with the recommended best practices guidance provided in the MPF and the AMPF. Particularly with regard to analyst due diligence procedures, valuation work paper documentation, and valuation report documentation, the following intangible asset valuation discussion is consistent with the professional guidance provided in the MPF and the AMPF.

DEFINING THE INTANGIBLE ASSET VALUATION ASSIGNMENT

Documenting the analyst's understanding of the assignment is an important procedure in the intangible asset fair value valuation. As indicated in the MFP, there are two components to the intangible asset fair value valuation assignment:

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

Each of these two assignment components will be summarized below.

The Objective of the Valuation Analysis

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

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

ASC 820, *Fair Value Measurements*, provides a definition of fair value. ASC 820 also provides a conceptual framework—and practical guidance—for the measurement of fair value. ASC 820-10-20 defines the fair value standard of value as follows:

> The price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants as of the measurement date.

The Purpose of the Valuation Analysis

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

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

The purpose of the valuation analysis also indicates the following:

- Why the intangible asset valuation is being performed
- The intended use(s) of the intangible asset valuation
- Who is expected to (and permitted to) rely on the results of the intangible asset valuation

BUNDLES OF LEGAL RIGHTS

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

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

DATA GATHERING AND DUE DILIGENCE

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

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

As one part of the fair value analysis, the analyst will describe and quantify the intangible asset economic benefits to the current owner/operator. Examples of such economic benefits include:

- Associated revenue increase (e.g., related product unit price/volume, market size/position)
- Associated expense decrease (e.g., expense related to product returns, COGS, SGA, R&D)
- Associated investment decrease (e.g., inventory, capital expenditures)
- Associated risk decrease (existence of intangible asset licenses/contracts, decrease in the cost of capital components)

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

In addition, the analyst will often perform an assessment of the intangible asset impact on the owner/operator strategic position. That is, the analyst will consider the impact of the subject intangible asset on the owner/operator's SWOT–strengths, weaknesses, opportunities, and threats.

MARKET PARTICIPANT/ MARKET POTENTIAL

In addition to assessing the economic benefit to the current owner/operator, the analyst typically will consider the intangible asset market potential outside of the current owner/operator—that is, to the market participant. In this assessment of the intangible asset economic benefit to the market participant, the analyst may consider the following factors:

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

In particular, the analyst will consider whether the current owner (or a market participant) can both (1) operate the subject intangible asset in the acquired entity and also (2) outbound license the subject intangible asset (for use in different products, different markets, different territories, etc.).

ANALYST'S REVIEW OF FINANCIAL PROJECTIONS

As indicated in the MPF, the analyst should review and challenge (1) any owner/operator-prepared financial projections and (2) any owner/operator-prepared measures of intangible asset economic benefits. These due diligence procedures would apply to any financial projections prepared by either (1) the acquiree company management or (2) the acquirer company management.

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

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

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

INTANGIBLE ASSET VALUATION APPROACHES AND METHODS

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

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accepted valuation methods within each intangible asset valuation approach. Each of the methods within an approach are based on common economic principles. There are a number of valuation procedures that are used to apply each intangible asset valuation method. The valuation procedures are performed in order for the analyst to select and apply the individual valuation variables that are needed to complete the valuation method.

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

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

For example, ASC 820 and the MPF categorize the greenfield method as an income approach valuation method. Most non-GAAP-related valuation literature would categorize the greenfield method as a cost approach valuation method. This is because the greenfield method quantifies the opportunity cost to the intangible asset owner/operator to recreate an intangible asset if the owner/operator did not already own the subject intangible asset. The greenfield method is often used for such contract-related intangible assets as licenses, permits, franchises, and certificates of need. The principal opportunity cost to the owner/operator is that entity's lost income during the intangible asset recreation period.

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

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

The analyst should consider all generally accepted valuation approaches and methods in the fair value valuation of each intangible asset included in the business combination. As recommended in the MPF, the analyst should document the thought process related to the selection of—and the rejection of—each valuation approach and method selected (or not selected). The analyst should document that selection (and rejection) criterion both in the valuation work papers and in the valuation report. And, forensic analysts reviewing the acquisition accounting valuation should carefully consider the extent of—and the contents of—the original analyst's description of the intangible asset valuation approach selection process.

COST APPROACH VALUATION CONSIDERATIONS

In the acquisition accounting valuation, some intangible assets will lend themselves to cost approach valuation analyses. Forensic analysts reviewing the acquisition accounting should assess how the original analyst considered the following intangible asset cost approach factors. These analyst considerations should be documented in both the fair value valuation work papers and the fair value valuation report.

All cost approach methods include both (1) a current cost measurement and (2) a depreciation measurement. The analyst should explain and document his or her consideration

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TABLE 1

GENERALLY ACCEPTED INTANGIBLE ASSET VALUATION APPROACHES AND METHODS

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

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

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

of the following four cost components in the cost approach analysis:

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

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

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

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

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

In addition, the forensic analyst should review the original analyst's description and documentation of the following cost approach factors:

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

MARKET APPROACH VALUATION CONSIDERATIONS

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

- Licenses of intangible assets
- Sales of intangible assets
- Companies that use intangible assets

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

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

The forensic analyst should assess how the original analyst considered and documented the following acquisition accounting market approach valuation considerations:

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

INCOME APPROACH VALUATION CONSIDERATIONS

In the acquisition accounting valuation, some intangible assets will lend themselves to income approach valuation analyses. Forensic analysts reviewing the acquisition accounting should assess how the original analyst considered the following intangible asset income approach factors. These analyst considerations should be documented in both the fair value valuation work papers and the fair value valuation report.

Continued on next page

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

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

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

- EBITDA
- EBIT
- NOI (EBITDA less income taxes)
- Net income
- Net cash flow

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

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

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

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

As will be further explained below, the analyst should explain two components of the EUL estimation. The first component is the term of the EUL—for example, the number of years of remaining useful life in the income projection. The second component is the rate of income decay over the EUL. This factor relates to the slope of the intangible asset income decay curve. That is, will the intangible asset income remain constant over the EUL? Will the intangible asset income decline over the EUL? Will that future income decrease occur at a constant rate of change—or at a nonconstant (accelerating) rate of change?

The forensic analyst should assess how the original analyst decided and documented the following income approach valuation considerations in the acquisition accounting analysis:

- How the analysis matched the selected discount/capitalization rate with the selected intangible asset income measure
- How the analysis matched the selected discount/capitalization rate with the subject intangible asset level of risk
- How the analyst considered the valuation date state of the competition in the owner/operator industry
- How the analysis considered all subsequent (to the valuation date) capital expenditures, R&D expenses, marketing expenditures, etc., related to the intangible asset ownership/operation
- How the fair value valuation analyzed only the amount of income that is directly related to (or associated with) the subject intangible asset
- How the fair value valuation present valued the projected income over either:
  - o the intangible asset average EUL
  - o down the intangible asset EUL income decay curve

As illustrated in **Figure 1** and **Figure 2** on the next page, this analyst decision with regard to the shape of the intangible asset EUL curve can have a material impact on the income approach value indications.

In both figures, let's assume that the subject intangible asset is, say, the acquired company's ongoing customer relationships. The analyst's due diligence reveals that the total expected remaining life of the customer relationships is 10 years. By the end of 10 years, all of the valuation date customers are expected to turn over. The average EUL is expected to be five years. That is, by the end of five years, half of the valuation date customers are expected to turn over. Over what period of time does the analyst project the customer relationships income in the income approach valuation?

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In the Figure 2 fair value valuation, the analyst present values a constantly declining income projection over the 10-year total EUL of the acquired customer relationships. Of course, the projected slope of the Figure 2 income decay curve (e.g., a convex slope versus a concave slope) will affect the intangible asset fair value indication.

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

FIGURE 1

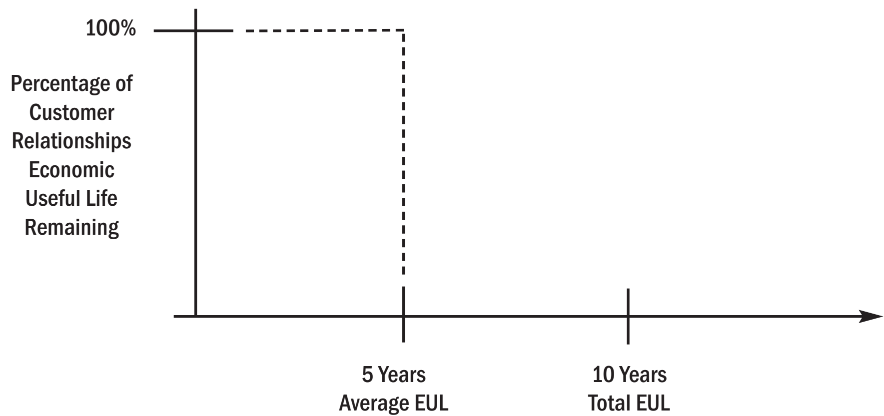
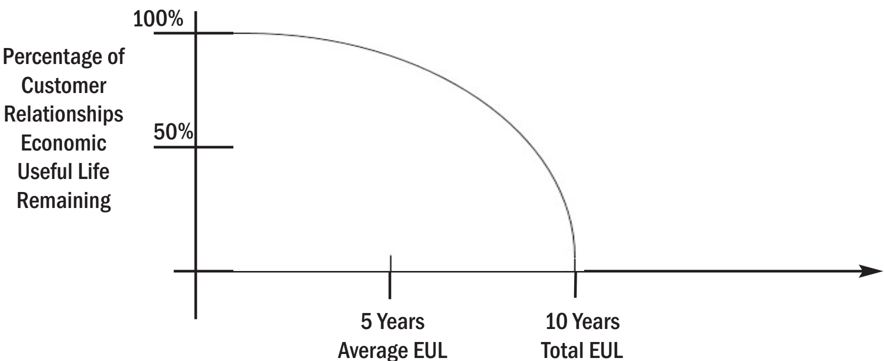


FIGURE 2



INCOME APPROACH TAX AMORTIZATION BENEFIT ADJUSTMENT

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

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

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

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

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

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

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

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otherwise used in the unadjusted income approach valuation analysis

Table 2 at right provides a simple illustration of the application of the TAB adjustment in a typical intangible asset income approach analysis.

The analyst (and the forensic analyst) should note that not all intangible assets qualify as Section 197 amortizable intangible assets. Therefore, not all intangible assets are subject to the TAB adjustment in the income approach valuation analysis.

The analyst (and the forensic analyst) should also note that not all acquisition transactions are taxable (i.e., tax basis adjustment) acquisitions. That is, depending on the structure of the subject business combination, the depreciable or amortizable tax basis of the transferred assets may not change in the hands of the new owner/market participant.

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

The forensic analyst should assess how the original analyst considered (and documented) all of the issues related to the TAB adjustment in the intangible asset income approach valuation analyses.

TABLE 2

ILLUSTRATIVE EXAMPLE
INCOME APPROACH VALUATION ANALYSIS
APPLICATION OF THE TAB ADJUSTMENT

Illustrative Example Fact Set:

Intangible Asset Income Approach Unadjusted Value Indication – $100,000,000
Owner/Operator Effective Income Tax Rate Used in the Unadjusted Analysis – 40%
Selected Present Value Discount Rate – 20%

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

TAB Factor = 1.1424

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

ILLUSTRATIVE EXAMPLE
ILLUSTRATIVE TAB ADJUSTMENT FACTOR APPLICATION
FAIR VALUE CONCLUSION

Unadjusted Income Approach Value Indication × TAB Adjustment Factor = Intangible Asset Fair Value Indication

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

VALUATION SYNTHESIS AND CONCLUSION

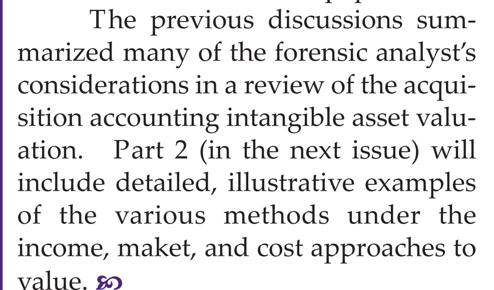
The forensic analyst should review the explanation (and documentation) of the acquisition accounting valuation synthesis and conclusion process. The synthesis and conclusion is the last procedure in the analyst's process of reaching a fair value conclusion.

In the valuation synthesis and conclusion, the analyst typically performs a procedure that is often referred to as the valuation reconciliation. In this reconciliation, the analyst reviews all of the intangible asset valuation analyses and the various intangible asset value indications. The analyst typically assigns either a quantitative or a qualitative weighting to each value indication. Based on the results of this valuation reconciliation, the analyst selects the final intangible asset value conclusion.

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

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

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



The previous discussions summarized many of the forensic analyst's considerations in a review of the acquisition accounting intangible asset valuation. Part 2 (in the next issue) will include detailed, illustrative examples of the various methods under the income, maket, and cost approaches to value.