

INTANGIBLE ASSET VALUATIONS FOR FEDERAL TAXATION PURPOSES

ROBERT F. REILLY

This discussion focuses on the intangible asset valuation practical guidance that analysts can extract from the acquisition accounting GAAP.

Taxpayers and tax counsel (counsel) often retain valuation analysts (analysts) to value intangible assets for federal taxation purposes. These intangible asset valuations are often prepared for income tax purposes. However, these intangible asset valuations can also be prepared for gift, estate, or generation-skipping transfer tax purposes.

Related to income taxation, intangible assets may be valued as part of a business acquisition purchase price allocation. Such a purchase price allocation occurs in transactions that are structured as a Section 1060 asset acquisition. Such an allocation may also occur in equity acquisitions that are accounted for as asset acquisitions through a Section 336(e) or 338(h)(10) election. Intangible assets may also be valued as part of a business sale, particularly with regard to the sale of a closely held corporation. In such instances, the selling shareholders may want to allocate the total consideration paid between the corporation stock and the shareholders' personal goodwill. Intangible assets may be valued when corporate or individual owners donate such assets as charitable

contributions. Furthermore, intangible assets (as well as tangible assets) may be valued when a C corporation converts to S corporation tax status, related to Section 1374 considerations. Intangible assets (as well as tangible assets) may be valued when taxpayer corporation solvency or insolvency is determined (for example, related to the Section 108 considerations regarding cancellation of debt income recognition). For the above purposes, fair market value (FMV) is typically the appropriate standard (or definition) of value to be considered.

Intangible assets may also be valued when intangible property is transferred between entities under common control. For example, valuation may be an issue when intangible property is transferred between a domestic subsidiary and a foreign subsidiary of a multinational corporation. In addition, valuation may be an issue when a C corporation operating company uses the intangible property of an S corporation asset holding/services company, where both entities are owned by a domestic taxpayer. For the above purposes, the Section

ROBERT F. REILLY is a managing director of Willamette Management Associates in the firm's Chicago, Illinois, office. His practice includes business valuation, forensic analysis, and financial opinion services. He is a certified public accountant accredited in business valuation and certified in financial forensics, a certified management accountant, chartered global management accountant, accredited tax advisor, chartered financial analyst, certified business appraiser, certified valuation analyst, certified valuation consultant, accredited senior appraiser, certified review appraiser, certified real estate appraiser, and state-certified general appraiser.

482 arm's-length price (ALP) standard is typically appropriate to use in the analysis.

Related to transfer taxes, intangible assets (and particularly intellectual property) may be valued when such assets are part of a decedent's estate. The intangible assets could be owned directly by the decedent, or the intangible assets could be owned directly by a closely held business that is owned by the decedent. Likewise, the intangible assets (owned directly or indirectly) could be gifts made by the donor. For these purposes, FMV is typically the appropriate standard of value.

While it is not the focus of this discussion, intangible assets may also be valued for state and local tax (SALT) purposes. For example, valuation may be an issue when a commercial company (e.g., a retailer) transfers intangible property (e.g., trademarks and trade names) to an intellectual property holding company (IPHC) in one state and then the IPHC licenses the intangible property to operating companies in other states. Valuation may also be an issue for ad valorem taxation purposes. Some states assess taxpayer intangible property for property tax purposes. Many states exempt intangible property from property taxation but assess certain industrial and commercial taxpayers based on the unit (or business enterprise) valuation principle. In such states, taxpayers may have to identify and value their intangible property in order to extract that value from the unit of taxable assets. For these SALT purposes, FMV (or a conceptually equivalent value definition) is often the appropriate standard of value.

In preparing taxation-related intangible asset valuations, analysts often look to U.S. generally accepted accounting principles (GAAP) for technical guidance. There is a substantial body of GAAP guidance with regard to intangible asset valuation approaches, methods, and procedures. Much of this guidance relates to the acquisition accounting for business combinations (both of these terms are defined below). The appropriate standard of value for GAAP valuations is fair value—instead of FMV. While there are some technical differences between these two standards of value, they are sufficiently similar to allow analysts to extract useful information from GAAP valuation guidance.

GAAP valuation guidance

The Financial Accounting Standards Board (FASB) Accounting Standards Codification (ASC)

topic 805 provides GAAP guidance related to business combinations. ASC 805 provides GAAP guidance related to the accounting for—and the reporting of—transactions that represent a business combination recorded using the acquisition method of accounting.

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

ASC 805 provides the professional guidance for how the acquirer in a business combination can accomplish the following financial reporting objectives:

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

Under ASC 805, the acquirer accounts for a business combination using what is called the acquisition method of accounting. Taxpayers and counsel may recall the now-obsolete GAAP term “purchase method” of accounting. Several years ago, the FASB changed the previous terminology of “purchase method” (and the FASB also changed many of the technical accounting procedures) to the current terminology of “acquisition method.” The reason for this terminology change was to emphasize that, under ASC 805, a business combination transaction can occur even when a merger or acquisition purchase transaction is not involved.

This discussion focuses on the intangible asset valuation practical guidance that analysts can extract from the acquisition accounting GAAP. It also summarizes analyst considerations related to developing, documenting, and reporting the GAAP intangible asset valuations—and how those considerations may also be useful for taxation valuations. Furthermore, this discussion presents illustrative examples of income approach, cost approach, and market approach intangible asset valuation analyses. These examples are applicable for FMV valua-

tions prepared for taxation purposes. The article concludes with recommended analyst caveats related to the development of—and reporting of—intangible asset valuations. These analyst caveats apply to both fair value valuations (prepared for GAAP purposes) and FMV valuations (prepared for taxation purposes).

Identifiable intangible assets

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

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.
2. The legal/contractual criterion.

Categories of intangible assets

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

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

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

(as the residual from the total transaction consideration).

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

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

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

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

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

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

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

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

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

- Patented or copyright software.

- Mask works.
- Unpatented technology.
- Databases.
- Trade secrets.

Differences between tangible assets and intangible assets

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

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

Put another way, the value of a tangible asset derives from the owner's use of the physical elements of the asset. The value of an identifiable intangible asset derives from the legal or contractual rights associated with the ownership of the intangible asset.

GAAP valuation guidance

A description of all of the GAAP guidance related to fair value valuation is beyond the scope of this discussion, which relates to intangible asset valuation. However, analysts who perform FMV valuations for taxation purposes may benefit from a review of 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 valuation guidance

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 valuation credential is Certified in Entity and In-

tangible Valuations (CEIV). A description of the CEIV credential program is beyond the scope of this discussion. However, analysts who perform FMV valuations for taxation purposes may want to become familiar with the requirements for the CEIV credential.

The three VPOs also issued nonauthoritative guidance related to the fair value valuations for GAAP compliance purposes. This nonauthoritative guidance is an integral part of the training and the testing related to the CEIV credential program and credential holders are required to comply with the provisions of this professional guidance. The three VPOs recommend that the provisions of this professional guidance be considered as best practices for all valuations. Therefore, even analysts who perform FMV valuations for taxation purposes—but who are not CEIV credential holders—may want to become familiar with this guidance.

The two sets of nonauthoritative professional guidance issued by the three VPOs are the following:

- 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.

A description of the specific contents of the MPF and the AMPF is 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 FMV valuations may want to become familiar with

Accounting
Practice Sales

1/6 Page
Vertical

the MPF and AMPF recommended best practices guidance. Particularly with regard to due diligence procedures, work paper documentation, and report documentation, the following discussion is consistent with the professional guidance provided in the MPF and the AMPF.

Defining the valuation assignment

Documenting the analyst's understanding of the assignment is an important procedure in any intangible asset valuation. There are two components to the valuation assignment:

- The objective of the valuation.
- The purpose of the valuation.

Each of these two assignment components is summarized below.

In preparing taxation-related intangible asset valuations, analysts often look to U.S. generally accepted accounting principles (GAAP) for technical guidance.

The objective of the valuation analysis. The objective of the valuation describes what the intangible asset valuation is intended to do. The objective of the 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. The purpose of the valuation 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 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 valuations prepared for either GAAP or tax purposes, the intangible asset ownership interest transferred is not always a fee simple interest. The transferor may not own the total bundle of legal rights related to the transferred intangible asset, or the transferor may not have transferred the entire bundle of legal rights to the transferee. Therefore, the analyst should consider (and document in the assignment understanding) what bundle of legal rights is encompassed in the valuation.

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

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

Data gathering and due diligence

In valuations prepared for GAAP or tax purposes, the analyst typically gathers and analyzes information related to the current intangible asset owner/operator. Such information may typically include the following:

- The owner/operator historical and prospective financial statements.
 - The owner/operator historical and prospective intangible asset development/maintenance costs.
 - The owner/operator current and expected total production resource/capacity constraints.
- As one part of the valuation, the analyst typically describes and quantifies the intangible asset economic benefits to the current owner/operator. Examples of such economic benefits include the following:
- Associated revenue increase (e.g., related product unit price/volume, market size/position).

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

In the above list of factors, the word “associated” means the economic benefits that can be associated with—or attributed to—the intangible asset. In addition, the analyst typically performs an assessment of the intangible asset impact on the owner/operator strategic position. That is, the analyst typically considers the impact of the intangible asset on the owner/operator’s SWOT (strengths, weaknesses, opportunities, and threats).

Intangible asset/market potential

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

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

In particular, the analyst typically considers whether the current owner (or the next owner) can both:

1. Operate the intangible asset in the owner/operator entity, and
2. Outbound license the intangible asset (for use in different products, different markets, different territories, etc.)

Due diligence of financial projections

In valuations prepared for GAAP or tax purposes, the analyst typically reviews and challenges: (1) any owner/operator-prepared financial projections and (2) any owner/operator-prepared measures of intangible asset economic benefits. These due diligence procedures typi-

cally apply to any financial projections prepared by either:

1. The acquiree/seller company management.
2. The acquirer/buyer company management.

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

- Compare any owner/operator-prepared prior financial projections to the owner/operator’s prior actual results of operations.
- Compare any owner/operator-prepared projections to the owner/operator’s current capacity constraints.
- Compare any owner/operator-prepared financial projections to the current total market size (for the market in which the owner operates).
- Consider any published industry data related to average comparable profit margin (CPM) for other companies that participate in the owner’s industry.
- Consider any published data related to the CPM of guideline publicly traded companies that participate in the 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 intangible asset or these data could relate to the arm’s-length use licensees of comparable uncontrolled transaction (CUT) intangible assets.
- Perform a remaining useful life (RUL) analysis, with consideration of the following factors: (i) any legal/statutory life indications; (ii) any contract/license life indications; (iii) any technology obsolescence life issues; (iv) any economic obsolescence life issues; (v) the lives of any prior generations of the subject intangible asset; and (vi) the current position of the subject intangible asset in its life cycle.

The FASB has determined that goodwill is not considered to be an identifiable intangible asset.

In ASC 805, the concept of RUL is referred to as useful economic life (UEL). This discussion uses the term RUL because it is more commonly used in taxation-related valuations. ASC 805 pays particular attention to the estimation of the intangible asset RUL. This is because RUL directly or indirectly affects the valuation of the intangible asset in each of the three generally accepted intangible asset valuation approaches (described below). In addition, the RUL affects the amortization

EXHIBIT 1 Generally Accepted Identifiable Intangible Assets 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)

period for intangible assets with a determinable RUL.

Intangible asset valuation approaches and methods

There are three generally accepted intangible asset valuation approaches: the cost approach, the market approach, and the income approach. There are a number of generally accepted valuation methods within each intangible asset valuation approach. Each of the methods within an approach is based on common economic principles. There are a number of valuation procedures that are used to apply each intangible asset valuation method. These 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 ASC provisions often use the term “valuation techniques.” The term “techniques” is not often used outside of the discipline of GAAP-related fair value valuations. However, analysts who perform FMV taxation

valuations 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 accounting purposes may be slightly different than the titles that analysts would use for taxation 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 intangible asset. The method is often used to value such contract-related intangible assets as licenses, permits, franchises, and certificates of need. The principal opportunity cost to the owner/operator is that entity’s lost income during the intangible asset recreation period.

However, these naming convention issues—such as whether the greenfield method is a cost approach method or an income approach method—are mainly semantic. These naming convention issues should not influence the value conclusion reached by the application of the particular intangible asset valuation method. A detailed description of the generally accepted valuation approaches and methods is beyond the scope of this discussion. However, Exhibit 1 provides a list of the generally accepted intangible asset valuation approaches and methods.

In valuations performed for either GAAP or tax purposes, the analyst should consider all generally accepted intangible asset valuation approaches and methods. In valuations performed for either GAAP or tax purposes, 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 in both:

1. The valuation work papers.
2. The valuation report.

Cost approach valuation considerations

Some intangible assets are commonly valued using cost approach analyses. The following con-

siderations should be documented in the valuation work papers and the valuation report.

All cost approach methods include both a current cost measurement and a depreciation measurement. The analyst should describe the consideration of the following cost components:

- 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 describe the consideration of the following depreciation components:

- Physical depreciation (not a significant factor in most intangible asset valuations).
- Functional obsolescence (with consideration of the intangible asset's estimated RUL).
- Economic obsolescence (with consideration of the owner/operator's return on investment—or ROI—related to the cost approach value indication).

The analyst should describe the application of this typical cost approach formula:

Current cost measurement
less: Physical depreciation (if any)
less: Functional obsolescence
less: Technological obsolescence
less: Economic obsolescence
equals: Value indication

The analyst should consider these cost approach factors:

- All cost components (including opportunity cost) included in the current cost measurement.
- The treatment of any excess capital costs (i.e., related to the intangible asset development) and any excess operating costs (related to the intangible asset operation).
- All considerations of RUL.
- All considerations of economic obsolescence.

Market approach valuation considerations

Some intangible assets are commonly valued using market approach analyses. Market approach valuation pricing metrics are typically based on comparable or guideline:

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

The analyst should describe the consideration of—and selection/rejection of—the following variables and procedures:

- Any quantitative/qualitative analysis with regard to the intangible asset ownership and operation.
- The guideline license/sale/company selection criteria.
- The actual selection and rejection of the guideline license/sale/companies.
- 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 analysis.
- The selection of the specific pricing multiples to apply to the financial or operational fundamentals.
- The application of the selected pricing multiples to the financial or operational metrics.
- The conclusion of the value indication based on the application of the subject-specific pricing multiples.

In valuations prepared for either GAAP or tax purposes, the analyst should describe the following considerations:

- The impact of applying seasoned guideline intangible asset transactional data with regard to a development stage identifiable intangible asset.
- The impact of applying development stage guideline intangible asset transactional data with regard to a seasoned identifiable intangible asset.
- The state of the competition in the owner/operator industry.
- The analysis of the guideline company and/or industry average comparable profit margins: Is the intangible asset the only reason for the difference in the operating profit margins between the owner/operator company and the selected CPM companies?

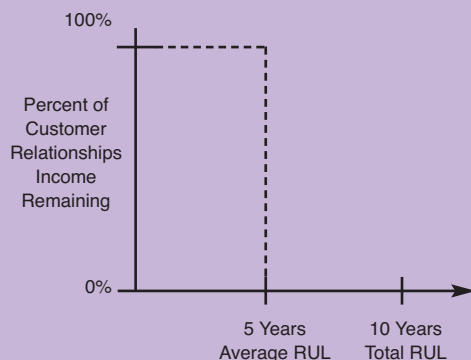
Income approach valuation considerations

Some intangible assets are commonly valued using income approach analyses. The following considerations should be documented in the work papers and the valuation report. 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).

Three valuation professional organizations have developed a new professional credential related to valuations performed for GAAP-related fair value accounting compliance purposes.

EXHIBIT 2 Taxpayer Customer Relationships Intangible Asset Present Value of the Income Projection Over the Average Remaining Useful Life



- 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.

Common income measures include the following:

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

The analyst should associate the selected income measures to the intangible asset. That is, the analysis should incorporate only the income associated with the intangible asset ownership or operation. The valuation report (and work papers) should describe how the analyst allocated, split, or otherwise associated the intangible asset portion of the owner/operator income to the subject intangible asset.

The valuation report (and work papers) should describe the selection of the particular income approach formula used in the analysis. The report should describe which of the following methods and procedures were used (and why they were used):

1. Yield capitalization methods, based on a non-constant expected income growth rate (a) with income projected over a finite RUL projection

period without a terminal value or (b) with income projected over a finite RUL projection period with a terminal value.

2. Direct capitalization methods, based on a constant expected income growth rate (a) with the income capitalized over a finite RUL projection period or (b) with the income capitalized over a perpetuity RUL projection period.

The RUL estimation is an important part of each of the above valuation methods. The RUL affects the income approach analysis and the value conclusion. It also affects the intangible asset GAAP amortization period.

The analyst should describe two RUL components. The first RUL component is the number of years of RUL in the income projection. The second RUL component is the rate of income decay or the slope of the income decay curve. Will the income remain constant over the intangible asset RUL? Will the income decline over the intangible asset RUL? Will that income decrease occur at a constant rate—or at a nonconstant (accelerating) rate?

The analyst should describe the following considerations:

- How the analyst matched the selected discount/capitalization rate with the selected income measure.
- How the analyst matched the selected discount/capitalization rate with the subject intangible asset level of risk.
- How the analyst considered the state of the competition in the owner/operator industry.
- How the analyst considered all post-valuation date capital expenditures, R&D expenses, marketing expenditures, etc., related to the intangible asset.
- How the analyst allocated the income amount directly related to (or associated with) the intangible asset.
- How the analyst present valued the income over either: (i) the average RUL or (ii) down the RUL income decay curve.

The analyst consideration of the RUL curve can have a material impact on the value indication. The figures in Exhibits 2 and 3 relate to a taxpayer's customer relationships intangible asset. The analyst's due diligence concludes that the customer relationships total remaining life is ten years. By the end of ten years, all of the valuation date customers are expected to turn over. The customer relationships average RUL is five years. By the end of five years, half of the valuation date customers are expected to turn

**EXHIBIT 3 Taxpayer Customer Relationships Intangible Asset
Present Value of the Income Projection Over the Total Remaining Useful Life Curve**

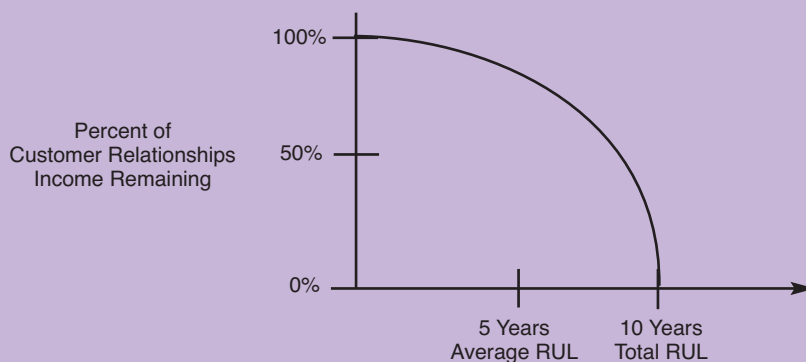


EXHIBIT 4 TAB factor formula

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

over. Over what period of time does the analyst project the customer relationships income?

In Exhibit 2, the analyst present values a constant income projection over the customers' five-year average RUL. In Exhibit 3, the analyst present values a constantly declining income projection over the 10-year total life. The slope of the Exhibit 3 income decay curve (e.g., a convex slope versus a concave slope) will affect the value indication. In both GAAP and tax valuations, the analyst should describe the decision regarding: (1) the length of the RUL period, and (2) the shape of the RUL decay curve.

Tax amortization benefit adjustment

The income approach tax amortization benefit (TAB) adjustment is a procedure that is commonly performed in GAAP fair value valuations. The TAB adjustment typically is not performed in taxation FMV valuations. Nonetheless, analysts who prepare tax FMV valuations should be aware of the TAB adjustment.

Both ASC 820 and the MFP discuss considerations related to the TAB adjustment in acquisition accounting income approach analysis. In valuations performed for either GAAP or tax purposes, the analyst should ensure that the valuation report (and work papers) adequately describe the TAB considerations.

For U.S. federal income tax purposes, taxpayers may amortize the cost of most purchased intangible assets over the Section 197 15-year amortization period. In the income approach valuation:

1. The intangible asset value amortization expense is typically recognized as a noncash expense before the pretax income measurement and
2. The amortization expense is typically added back to the income projection as a noncash expense after the income tax expense.

This income approach value increment may be recognized by applying the so-called TAB factor. The TAB factor is typically added as a value adjustment to the income approach value indication. The TAB factor is often measured using the formula illustrated in Exhibit 4.

In the typical TAB factor application:

- The income tax rate is the effective income tax rate that is otherwise used in the income 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 used in the income approach analysis.

The example in Exhibit 5 illustrates the TAB adjustment. However, not all intangible assets qualify as Section 197 amortizable intangible assets. Therefore, not all income approach valuations include the TAB adjustment. Not all acquisitions are taxable transactions (i.e., tax basis adjustment) acquisitions. Depending on the acquisition structure, the depreciable or amortizable tax basis of the transferred assets may not

EXHIBIT 5 Application of the TAB Adjustment to the Income Approach Analysis

Illustrative Variables:

Income Approach Unadjusted Value – \$100,000,000

Effective Income Tax Rate – 40%

Present Value Discount Rate – 20%

Present Value Annuity Factor (15 years, 20%) – 4.6755

TAB Factor:

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

TAB Factor = 1.1424

This TAB factor results in an approximately 14% value adjustment to the unadjusted income approach value.

TAB Adjustment Factor Application Value Conclusion

Application of TAB Factor to the Income Approach:

Unadjusted Income Approach Value Indication × TAB Adjustment Factor =

Intangible Asset Value Conclusion

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

change in the hands of the new owner. Furthermore, not all national taxing jurisdictions allow for the amortization of acquired intangible assets. In international business combinations, there may be no equivalent to Section 197 in the local country income tax laws.

In conclusion, the analyst should consider the TAB adjustment issues related to the income approach analysis. In particular, the analyst should consider if a TAB adjustment is applicable in a taxation FMV valuation.

Valuation synthesis and conclusion

In both GAAP and tax valuations, the analyst should describe the valuation synthesis and conclusion process, which is the last procedure in the process of reaching the value conclusion. The analyst typically performs a procedure referred to as the value reconciliation. In this reconciliation, the analyst reviews all of the analyses and the various intangible asset value indications. In both GAAP and tax valuations, the analyst may assign either a quantitative or a qualitative weighting to each value indication. Based on the results of this reconciliation, the analyst selects the final value conclusion.

As part of this synthesis and conclusion process, the analyst typically answers the following questions:

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

For GAAP fair value valuations, the MPF emphasizes the importance of documenting these considerations in the work papers.

The discussion above summarizes many of the considerations in the intangible asset valuation. The discussion below illustrates examples of income approach, market approach, and cost approach intangible asset valuations. These analyses are presented for illustrative

EXHIBIT 6 Red Customer Relationships Valuation Selected Valuation Variables as of 1/1/17 (\$000s)

Valuation Projection Variables	Basis for the Selected Valuation Variables
Total 2017 budgeted revenue	\$6,000,000
Residential customer revenue	\$4,000,000
Commercial customer revenue	\$2,000,000
Annual revenue growth rates	Management long-range strategic plan
Customer attrition rate	Based on an average of the actual monthly attrition rates for the period 2013–2016
Remaining useful life	Years until the remaining expected customer revenue is less than 5% of the original (valuation date) customer revenue
EBITDA profit margin %	Based on an average of 2012–2016, adjusted for new customer selling expense
Depreciation expense	15% of revenue, based on an average of 2012–2016
Amortization expense	5% of revenue, based on an average of 2012–2016
Income tax rate	Market-based effective income tax rate
Contributory asset charges:	Working capital balance = 10% of revenue, based on the 2012–2015 actual average; capital charge % = the 10% Red weighted average cost of capital (“WACC”) Tangible asset FMV = \$4,800,000, based on a replacement cost new less depreciation (“RCNLD”) method valuation analysis of the real estate (“RE”) and tangible personal property (“TPP”); \$4,800,000 = 80% of total revenue; capital charge % = the 10% WACC Contributory intangible asset FMV = \$2,000,000 based on the analyst’s FMV valuations of the software, trademarks, technology and assembled workforce; capital charge % = the 10% WACC; \$200,000 capital charge = 3% of the Red total revenue
Working capital charge	
Tangible asset charge	
Intangible asset charge	
Capital expenditures	Annual capx = 105% of annual depreciation expense, based on the analyst’s due diligence of management projections; this variable is consistent with the historical 10-year average relationship
Working capital change	Based on the projected annual change in working capital balance; the balance is based on 10% of the remaining customer revenue
Discount periods	The midyear discounting convention is assumed
Discount rate	Based on the 10% WACC

purposes only. They are not presented as a template for intangible asset valuations.

Income approach illustrative example

The example in Exhibit 6 illustrates an income approach valuation of a customer relationships intangible asset. The Red Taxpayer Company (Red) assets were acquired in a Section 1060 asset purchase transaction on 1/1/17. The customer rela-

tionships are a Section 197 intangible asset. The analyst is engaged to allocate the purchase price among the acquired assets.

FMV is the appropriate standard of value. Based on the highest and best use (HABU) analysis, value in continued use is the appropriate premise of value.

Red serves both residential customers and commercial customers. The example illustrates the residential customers valuation but the commercial customers valuation would follow

EXHIBIT 7 Red Customer Relationships Intangible Asset Fair Market Value as of 1/1/17 (\$000s)

Valuation Variables	Year 1	Year 2	Year 3	Year 4
Total Residential Customer Revenue	4,000,000	4,160,000	4,326,400	4,499,456
Residential Revenue Growth Rate		4%	4%	4%
Customer Annual Attrition Rate	24%	24%	24%	24%
Remaining Customer Revenue %	76.0%	57.8%	43.9%	33.4%
Remaining Customer Revenue	3,040,000	2,404,482	1,899,290	1,502,818
EBITDA Margin %	60%	60%	60%	60%
EBITDA	1,824,000	1,442,688	1,139,574	901,691
Depreciation/Amortization Expense (% of revenue)	20%	20%	20%	20%
Depreciation/Amortization Expense	608,000	480,896	379,858	300,564
EBIT	1,216,000	961,792	759,716	601,127
Income Taxes @ 40%	486,400	384,717	303,886	240,451
After-Tax Operating Income	729,600	577,075	455,830	360,676
Less: Contributory Asset Charges:				
Working Capital Asset Charge	30,400	24,045	18,993	15,028
Tangible Asset Capital Charge	243,200	192,358	151,943	120,225
Intangible Asset Capital Charge	91,200	72,134	56,979	45,085
Total Capital Charge	364,800	288,537	227,915	180,338
Depreciation/Amortization Expense	608,000	480,896	379,858	300,564
Capital Expenditures	478,800	378,706	299,139	236,694
Working Capital Decrease	(96,000)	(63,552)	(50,519)	(39,242)
Net Cash Flow from Customers	590,000	454,280	359,153	283,455
Discount Period	0.5	1.5	2.5	3.5
Present Value Factor @ 10%	0.9524	0.8658	0.7871	0.7155
Present Value of Customer Cash Flow	561,916	393,316	282,689	202,812
Total Present Value of Customer Cash Flow	1,904,929			
Fair Market Value of Customer Relationships (rounded)	1,900,000			

EXHIBIT 8 Red Tangible Assets Contributory Asset Charge (\$000s)

Valuation Variables	Year 1	Year 2	Year 3	Year 4
Remaining Customer Revenue	3,040,000	2,404,480	1,899,20	1,502,818
Net Tangible Assets as % of Revenue	80%	80%	80%	80%
Remaining Customer Tangible Assets	2,432,000	1,923,584	1,519,432	1,202,254
Capital Charge ROI %	10%	10%	10%	10%
Capital Charge on the Tangible Assets	243,200	192,358	151,943	120,225

a similar methodology. The analyst decided to use the income approach and the multiperiod excess earnings method (MEEM). The explanation for the selection of valuation approach

and method should be described in the report and work papers.

Let us assume that the analyst has already valued the Red contributory working capital assets, contributory tangible assets, and the following

Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11
4,679,434	4,866,612	5,012,610	5,162,988	5,317,878	5,477,414	5,641,737
4%	4%	3%	3%	3%	3%	3%
24%	24%	24%	24%	24%	24%	24%
25.5%	19.3%	14.7%	11.1%	8.5%	6.4%	4.9%
1,188,576	939,256	736,854	573,092	452,020	350,555	276,445
60%	60%	60%	60%	60%	60%	60%
713,146	563,554	442,112	343,855	271,212	210,333	165,867
20%	20%	20%	20%	20%	20%	20%
237,715	187,851	147,371	114,618	90,404	70,111	55,289
475,431	375,703	294,741	229,237	180,808	140,222	110,578
190,172	150,281	117,896	91,695	72,323	56,089	44,231
285,259	225,422	176,845	137,542	108,485	84,133	66,347
11,886	9,393	7,369	5,731	4,528	3,506	2,764
95,086	75,141	58,948	45,847	36,162	28,044	22,116
46,657	28,178	22,106	17,193	13,561	10,517	8,293
142,629	112,712	88,423	68,771	54,243	42,067	33,173
237,715	187,851	147,371	114,618	90,404	70,111	55,289
187,200	147,932	116,054	90,262	71,193	55,212	43,540
(31,425)	(24,931)	(20,241)	(16,376)	(12,107)	(10,146)	(7,412)
224,570	177,560	139,980	109,503	85,560	67,111	52,335
4.5	5.5	6.5	7.5	8.5	9.5	10.5
0.6505	0.5914	0.5376	0.4887	0.4443	0.4039	0.3672
146,083	105,009	75,253	53,514	38,014	27,106	19,217

Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11
1,188,576	939,256	736,854	573,092	452,020	350,555	276,445
80%	80%	80%	80%	80%	80%	80%
950,861	751,405	589,483	458,474	361,616	280,444	221,156
10%	10%	10%	10%	10%	10%	10%
95,086	75,141	58,948	45,847	36,162	28,044	22,116

contributory intangible assets: computer software, proprietary technology, trademarks and trade names, and the trained and assembled workforce. The analyst performed—and documented—a valuation due diligence process.

Based on that due diligence, the analyst selected the valuation variables listed in Exhibit 6.

Exhibit 7 summarizes the income approach valuation of the customer relationships intangible asset.

EXHIBIT 9 Red Intangible Assets Contributory Asset Charge (\$000s)

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

Exhibit 8 summarizes the contributory asset charge ROI with regard to the customer relationships-related tangible asset investment.

Exhibit 9 summarizes the contributory asset charge ROI with regard to the other intangible assets. The analyst previously valued the contributory intangible assets: computer software, trademarks and trade names, proprietary technology, and assembled workforce.

Income approach conclusion. As summarized in Exhibit 7, the analyst used the MEEM to estimate the FMV of the Red customer relationships. The analyst projected the intangible-asset-related income over the customer relationships RUL. The analyst present valued this income to conclude the FMV of this intangible asset.

Cost approach example

This example illustrates a cost approach valuation of an assembled workforce. White Taxpayer Company (White) elected to convert from C corporation status to S corporation status as of 1/1/17. White is concerned about recognizing a gain on the sale of any of the White assets during the post-conversion Section 1374 ten-year period.

White retained the analyst to estimate the FMV of all of the White assets as of the conclusion date. The appropriate standard of value is FMV. Based on the HABU analysis,

the appropriate premise of value is value in continued use.

One of the White intangible assets is its assembled workforce. White operates with 50 employees. There are three principal staff levels: executives, technicians, and administrative staff. The analyst decided to use the cost approach and the RPCNLD method to estimate the assembled workforce FMV.

Exhibit 10 summarizes the reproduction cost new (RPCN) component of the RPCNLD method analysis. In this calculation, the analyst considers all four cost components: direct costs, indirect costs, developer's profit, and entrepreneurial incentive. The analyst considered all four cost components in the calculation of the current cost to recruit, hire, and train the recreated assembled workforce. The analyst's due diligence considerations are summarized next.

Reproduction cost new—direct costs and indirect costs.

The RPCN considers the total compensation paid to each employee, labelled as "average salary" on Exhibit 10. These costs are direct costs and are typically paid to the employees. The RPCN considers all of the other expenses that the taxpayer would incur related to each employee. These other costs are indirect costs, including:

1. Payroll taxes.
2. Employee benefits.
3. Continuing professional education.
4. Annual license and credential fees.

5. Uniforms and lab coats.
6. Employee parties, gifts, etc.

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

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

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

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

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

Reproduction cost new—developer's profit and entrepreneurial incentive. There are two additional cost components in the RPCN calculation:

1. Developer's profit.
2. Entrepreneurial incentive.

The developer's profit considers the profit margin that a management consulting, human resources outsourcing, or professional staffing firm would earn if the taxpayer retained such a firm to recreate the workforce. Likewise, the taxpayer would expect to earn a profit on the sale of its internally developed intangible assets to a willing buyer.

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

For example, assume that the taxpayer has five intangible assets that are valued by the cost approach. The total entrepreneurial incentive (i.e., the recreation period total taxpayer lost

Humane Society of the United States

1/2 page 4 color

EXHIBIT 10 White Assembled Workforce Valuation Cost Approach RPCNLD Method as of 1/1/17

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

EXHIBIT 11 White Assembled Workforce Physical Deterioration as of 1/1/17

Assembled Workforce Component	No. of Employees	Average Direct and Indirect Reproduction Cost New	Total Direct and Indirect Reproduction Cost New	Developer's Profit and Entrepreneurial Incentive Cost Components	Total Reproduction Cost New	Percent Depreciation	Equals: Accumulated Depreciation
Technicians	2	\$45,000	\$90,000	\$13,000	\$103,000	100%	\$103,000
Administrative Staff	1	22,400	22,400	3,200	25,600	100%	25,600
Total				16,200	128,600		\$128,600

profits) should be allocated among the five recreated intangible assets.

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

The White workforce RPCN is the sum of all four cost components. Next, the analyst considers the depreciation and obsolescence adjustment to the RPCN.

Depreciation considerations. From the due diligence, the analyst learned the following facts about the White workforce:

1. Two of the technicians are scheduled to retire in the next year or so.
2. One of the administrative staff is out on disability leave and is not expected to return to work.
3. White is overstaffed with regard to administrative staff; any willing buyer would eliminate two of the administrative positions.
4. White has experienced very low employee turnover of its technician staff. Because of their

Percent of Full Absorption Cost to Replace Employees	Average Reproduction Cost New Component	Total Reproduction Cost New Component
80%	230,400	\$2,304,000
50%	45,000	900,000
40%	22,400	448,000
		3,652,000
		10%
		365,000
		4,017,000
		161,000
		\$4,178,000

long tenure, these technicians earn an average annual salary of \$60,000. These technicians could be replaced with adequately qualified (but less tenured) employees earning an average annual salary of \$50,000.

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

A willing buyer will not pay the taxpayer for reproduction costs that the buyer will, in fact, have to incur in the near future. The analyst eliminates from the valuation (through depreciation) the RPCN for these three employees.

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

1. Inadequate, or
2. Superadequate.

White has two inadequate employees—employees who a willing buyer would not continue to employ. The willing buyer will not pay

the taxpayer for the RPCN related to these inadequate employees. White has 18 superadequate employees—that is, employees who are overtrained, overqualified, and overpaid. The willing buyer will not pay for the excess compensation (above replacement level of compensation) level for these 18 employees.

Exhibit 13 summarizes the RPCN less physical depreciation and less functional obsolescence. This RPCNLD conclusion indicates what a willing buyer would pay the taxpayer for this assembled workforce, assuming that there is no economic obsolescence. To complete the analysis, the analyst has to test for economic obsolescence.

Exhibit 14 summarizes the economic obsolescence analysis. Based on due diligence, the analyst decided that there were six performance metrics that could be used to measure economic obsolescence.

The due diligence revealed the appropriate benchmark measures or benchmark time periods to compare: (1) the White operations without/before economic obsolescence to (2) the current White operations with economic obsolescence. Exhibit 15 summarizes the economic obsolescence analysis.

Cost approach conclusion. Exhibit 16 summarizes the White assembled workforce FMV as of the 1/1/17.

Market approach example

This example illustrates a market approach valuation of trademarks and trade names. Blue Taxpayer Company (Blue) restructured its debt as of 1/1/17, resulting in a \$100 million reduction in its note principal. Blue is concerned about the recognition of cancellation of debt (COD) income. To avoid recognizing the COD income, Blue will perform a Section 108 test for insolvency as of the restructuring date. To avoid the COD income recognition, Blue will have to prove that the value of its liabilities exceeds the value of its assets by at least \$100 million.

The taxpayer retains the analyst to perform the Section 108 solvency/insolvency analysis. The analyst values all of the Blue assets, including its intangible assets. The Blue trademarks and trade names are an important intangible asset. The appropriate standard of value is FMV. Based on the HABU analysis, the appropriate premise of value is value in continued use.

EXHIBIT 12 White Assembled Workforce Functional Obsolescence as of 1/1/17

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

EXHIBIT 13 White Assembled Workforce Cost Approach RPCNLD Method as of 1/1/17

Cost Approach Analysis	Cost Component
Reproduction Cost New (50 employees)	\$4,178,000
Less: Physical Deterioration Allowance (limited life staff)	128,600
Less: Functional Obsolescence Allowance (inadequate staff and superadequate staff)	206,000
Equals: Reproduction Cost New less Depreciation	\$3,843,400

The analyst decided to use the market approach and the relief from royalty (RFR) method to value the trademarks. Management provided the analyst with a long-term financial forecast. The analyst performed due diligence and concluded that the appropriate RUL for the trademarks is 20 years. The analyst described the reasons for this RUL estimate in the valuation report and work papers. Assume that the Blue WACC is 11%.

Intellectual property license databases. The analyst performed due diligence with regard to the operation of the Blue trademarks. After selecting the RFR method, the analyst searched for arm's-length trademark license agreements between independent parties that could serve as comparable uncontrolled transactions (or CUTs). The analyst consulted several databases in the search for CUTs that would provide empirical evidence of trademark license royalty rates. Blue is a telecom company. The analyst researched telecom CUT trademark license agreements by accessing the following databases:

- RoyaltySource (www.royaltysource.com)—The AUS Consultants database provides intellectual property license transaction royalty rates. The database can be searched by industry, technology, and/or keyword. The informa-

tion includes royalty rates, name of the licensee and the licensor, a description of property licensed (or sold), the transaction terms, and the original information source.

- RoyaltyStat, LLC (www.royaltystat.com)—RoyaltyStat is a subscription-based database of intellectual property license royalty rates and license agreements, compiled from Securities and Exchange Commission documents. The database is searchable by SIC code or by full text.
- Royalty Connection (www.royaltyconnection.com)—Royalty Connection™ provides online access to intellectual property license royalty rate and other license information on all types of technology, patents, trade secrets, and know-how. Users can search this database by industry, product category, or keyword.
- ktMINE (www.bvmarketdata.com)—ktMINE is an interactive database that provides direct access to intellectual property license royalty rates, actual license agreements, and detailed agreement summaries. In this database, intellectual property license agreements are searchable by industry, keyword, and various other parameters.

Selected trademark CUTs. The analyst documented the CUT search criteria, the CUT selection crite-

EXHIBIT 14 White Assembled Workforce Economic Obsolescence as of 1/1/17

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

EXHIBIT 15 White Assembled Workforce Economic Obsolescence as of 1/1/17

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

EXHIBIT 16 White Assembled Workforce Cost Approach Conclusion as of 1/1/17

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

ria, and the reasons for either selecting or rejecting each potential CUT. The analyst reviewed each CUT license agreement and confirmed each CUT license price. Furthermore, the analyst documented the selected royalty rate comparison criteria (e.g.,

territory, products covered, exclusivity, licensor requirements, license rights, renewal options, license terms, etc.). Finally, the analyst assembled (and normalized) the relevant royalty-related pricing data with regard to the selected CUT licenses.

EXHIBIT 17 Blue Trademarks and Trade Names CUT Trademark License Transactions

Trademark Licensor	Trade-mark Licensee	Comparable Uncontrolled Transaction Trademark License Summary Description	License Start Year	License Term	License Royalty Rate Range % of Revenue		License Upfront/ Other Fees
					Low	High	
South-western Bell Telephone Company	Telecom Group	Telecom Group agreed to a royalty for the exclusive right to license the name and marks of the South-western Bell Telephone Company.	2014	10 years	5.0%	5.0%	NA
Cable and Wireless PLC	Hong Kong Telecommunications Ltd.	Cable and Wireless entered into an exclusive license with a Hong Kong telephone company for the use of its telecommunications trademarks on specified products and services.	2012	10 years	4.0%	4.0%	NA
AT&T Corp.	KIRI Inc.	AT&T grants to KIRI an exclusive license to use the licensed marks (AT&T and globe design logo) solely in connection with the licensed telecommunication and Internet services in the licensed territory.	2013	5 years	2.5%	4.0%	\$2.5 million minimum guarantee
Nextel	Nextel Partners	A contract between a private U.S. company and a publicly owned U.K. spin-off company includes an exclusive license for the right to use the Nextel trade name.	2015	5 years	1.5%	2.0%	NA
France Telecom (Orange Brand Services Limited, UK)	PTK Centertel	PTK Centertel is rebranding its name from Idea to Orange. Idea will change its name trademark. PTK Centertel will pay to France Telecom a royalty for the exclusive use of the Orange name and mark.	2016	5 years	1.6%	1.6%	NA
Global Communications International, Inc.	Unical Enterprises, Inc.	Unical licensed from Global an exclusive right to use the following trademarks: Techline, Easytouch, Favorite, Classic Favorite, Classic Favorite Plus, Phototouch, Choice, Competitor, Competitor Plus, Roommate, Plaza, Favorite Plus, Easyreach, Big Button, EZ Button, Cleartech, Favorite Messenger II, Digimate, Mountain Bell, B Office, Bell Symbol, Bell Mark, North-western Bell in connection with telecom services.	2015	10 years	2.1%	2.2%	NA
Virgin Enterprises Limited	NTL Inc.	NTL entered into a license under which it is entitled to the exclusive use of specified Virgin trademarks within the U.K. and Ireland related to Internet, fixed line telephony, and mobile telephony.	2015	10 years	1.25%	1.25%	£8.5 million minimum annual royalty

Exhibit 17 summarizes the license pricing and other data with regard to the selected CUT licenses. (Exhibit 17 data are hypothetical for the purposes of this example.)

Exhibit 18 summarizes the CUT royalty rate data quantitative analysis.

Comparing: (1) the Blue trademarks to (2) the selected CUT license trademarks, the analyst considered trademark use, territory, products, market size, market growth rate, user size, user profitability, trademark-related profit potential, and other factors. The analyst concluded that the Blue trademarks deserved a

royalty rate that was slightly below the mean and median royalty rates—but higher than the first (i.e., the low) quartile royalty rate. The analyst selected a 2% of revenue royalty rate to apply to the RFR method analysis. The analyst selected this royalty rate considering the expense to the licensor of maintaining the licensed trademark over the expected 20-year RUL period.

Market approach conclusion. Exhibit 19 summarizes the RFR method analysis. This analysis incorporates the royalty relief analysis over

both: (1) a five-year discrete projection period, and (2) a 15-year terminal value projection period. The total 20-year projection period equals the Blue trademark RUL. Based on the market approach and relief from royalty method, the analyst concluded the Blue trademarks and trade names FMV.

Intangible asset valuation report

In order to encourage the reader's acceptance, the taxation FMV intangible asset valuation report should be:

- Clear, convincing, and cogent.
- Well-organized, well-written, and well-presented.
- Free of grammar, punctuation, spelling, and mathematical errors.

EXHIBIT 18 Blue Trademarks and Trade Names Indicated CUT License Agreements License Royalty Rate Range

	Low Royalty Rate Indications	High Royalty Rate Indications
High Royalty Rate	5.0%	5.0%
Low Royalty Rate	1.3%	1.3%
Mean Royalty Rate	2.9%	3.2%
Median Royalty Rate	2.1%	2.2%
Trimmed Mean Royalty Rate	2.3%	2.8%
	1.4%	2.8%
Third Quartile Royalty Rate	4.5%	4.6%
Royalty Rate Selected for Blue Trademarks = 2%		

EXHIBIT 19 Blue Trademarks and Trade Names Market Approach Relief from Royalty Method Fair Market Value Summary as of 1/1/17

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

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

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

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

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

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

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

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

- Procedurally and mathematically replicable, without the reliance on any unexplained or unsourced valuation variables.

Whether the valuation report is a “comprehensive valuation report” or an “abbreviated valuation report” (those terms are defined in the MPF), the taxation FMV intangible asset valuation report should tell a narrative story that:

- Defines the valuation assignment.
- Describes the data gathering and due diligence procedures.
- Justifies the selection of (and rejection of) each of the generally accepted valuation approaches, methods, and procedures.
- Explains how the analyst performed the valuation synthesis and reached the final value conclusion.
- Defends the intangible asset value conclusion.
- Describes all of the data sources relied on (and includes exhibit or appendix copies of any nonpublic source documents).

Valuation report errors to avoid

Whether prepared for GAAP or tax purposes, the intangible asset valuation report should avoid these common errors:

- Failure to apply the defined standard of value.
- Failure to apply the defined premise of value.
- Analytical internal inconsistencies (both within and between valuation approaches).
- Arithmetic errors in the valuation analysis.
- Insufficient support for the selected valuation variables.

- Reliance on so-called industry or other rules of thumb.
- Insufficient data and inadequate market research.
- Inadequate analyst due diligence procedures.

Conclusion

Taxpayers and counsel often retain analysts to value intangible assets for various taxation purposes. Such purposes primarily include federal income tax and federal transfer tax issues. However, such purposes can also include SALT issues.

Because valuation issues are common in GAAP, analysts often look to GAAP for professional guidance related to taxation-related intangible asset valuation issues. Although GAAP guidance relates to fair value (instead of FMV) valuations, GAAP (and other nonauthoritative accounting provisions) may provide general guidance with regard to the development and reporting of tax-related intangible asset valuations.

This discussion summarized what taxpayers and counsel need to know about the common elements of the taxation FMV intangible asset valuation. It provided illustrative examples of income approach, cost approach, and market approach intangible asset valuation analyses. Finally, this discussion summarized the analyst considerations (and analyst caveats) related to the development of—and reporting of—taxation-related intangible asset valuations. ■