Thought Leadership Discussion

Professional Practice Intellectual Property Valuation, Damages, and Transfer Price Analyses

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Analysts are often asked to estimate the value of, measure the damages to, or determine the appropriate arm's-length transfer price for an intellectual property owned or operated by either a professional practice or a professional services company. Analysts are also asked to develop valuation, damages, or transfer price analyses related to intellectual property owned or operated directly by an individual professional practitioner. This discussion considers the many reasons for conducting such intellectual property economic analyses. This discussion describes the generally accepted intellectual property valuation approaches and methods. This discussion illustrates the application of several valuation methods through the development of illustrative examples. And, this discussion presents analyst guidance and analyst caveats with regard to the reporting of these professional-practice-related intellectual property economic analyses.

Introduction

Valuation analysts are often asked to value the intellectual property owned or operated by a professional practice or professional services company. As discussed below, such intellectual property valuations may be developed for accounting, taxation, financing, transaction, litigation, and many other purposes.

Damages analysts are often asked to measure the damages to an intellectual property suffered by a professional practice or professional services company owner/operator. Such damages measurement analyses often relate to tort claims or to claims of breach of contract.

Transfer price analysts are often asked to determine an intercompany transfer price related to the intellectual property owned or licensed by a professional practice or professional services company. Such transfer price analyses are typically developed for accounting, taxation, or license negotiation purposes.

In this discussion, valuation analysts, damages analysts, and transfer price analysts are collectively referred to as "analysts."

First, this discussion summarizes the various types of intellectual property that an analyst may encounter with regard to the professional practice, professional services company, or individual practitioner valuation, damages, or transfer price analysis.

While much of this discussion applies to damages measurements and transfer price determinations, the focus of this discussion relates to professional practice and professional services company intellectual property valuation analyses.

Therefore, second, this discussion considers the many general reasons why an analyst may be asked to value the professional practice, the professional services company, or the individual practitioner intellectual property.

While analysts may encounter many categories of reasons to value a professional practice's intellectual property, one frequent reason relates to family law disputes.

Such disputes typically involve the professional practice or professional services company owners. Accordingly, this discussion considers the specific family-law-related reasons why an analyst may be asked to value professional practice intellectual property.

Third, this discussion describes and illustrates the generally accepted intellectual property valuation approaches and methods. Several illustrative examples of simplified intellectual property valuation analyses are presented.

Fourth, this discussion summarizes the typical analysis data sources and analyst due diligence procedures related to the professional practice or professional services company intellectual property valuation.

And, finally, this discussion presents typical analyst caveats and report writing guidelines for intellectual property valuations performed within the context of a professional practice or a professional services company.

Types of Professional Practice Intellectual Property

Whether or not the valuation (or damages or transfer price) analysis relates to a professional practice, professional services company, or individual practitioner, there are only four categories of intellectual property. These four categories follow:

- Patents
- Trademarks
- Copyrights
- Trade secrets

These four types of intellectual property are one subset of the general category of property typically called intangible assets or intangible personal property.

The term "intangible assets" is an accounting term. In contrast, the term "intangible personal property" is a legal term. There are subtle differences between these two terms. However, for purposes of this discussion, we will consider these two terms to be synonyms.

Patents, trademarks, and copyrights are created under and protected by federal statutes. In contrast, trade secrets are created under and protected by state statutes. However, most states have either completely adopted—or adopted the essence of—the Uniform Trade Secret Act within their state statutes.

For purposes of this professional-practice-related discussion, the professional practice may be either the intellectual property owner (and, particularly, the licensor) or the intellectual property nonowner operator (and, therefore, the licensee). Therefore, in this discussion, the professional practice (or the professional services company or the individual practitioner) is sometimes referred to as "the owner/operator."

As will be described further below, the professional practice could either directly or indirectly own or operate the intellectual property.

In the direct case, the professional practice (or professional services company or practitioner) directly owns or licenses the intellectual property. An example would be a practitioner/inventor who owns (and/or licenses) a patent or a practitioner/author who owns (and/or licenses) a copyright.

In the indirect case, the professional practice (or some other type of private professional services company)—and not the individual practitioner—owns and operates (i.e., derives value from) the intellectual property.

For purposes of this professional-practices-related discussion, the above-listed four intellectual property categories may be expanded slightly to include what are often called associated or contributory intangible assets.

The patents category may include patent applications, the technology and designs encompassed in the patent, and the engineering drawings and other technical documentation that accompanies the patent or patent application.

The trademarks category may include trademarks (both registered and unregistered), trade names, service marks, service names, trade dress, product labeling that includes trademarks, institutional advertising (including signage), and promotional materials that include trademarks.

The copyrights category may include both registered and unregistered copyrights on publications, manuscripts, white papers, musical compositions, plays, manuals, films, computer source code, blueprints, technical drawings, and other forms of documentation.

And, the trade secrets category may include any information or procedures that the owner/operator keeps secret and that provide some economic benefit to the owner/operator.

Such trade secrets include computer software source code, employee manuals and procedures, computer system user manuals and procedures, station or employee operating manuals and procedures, chemical formula, food and beverage recipes, product designs, engineering drawings and technical documentation, plant or process schematics, financial statements, employee files and records, customer files and records, vendor files and records, and contracts and agreements.

It is not atypical for a professional practice, company, or practitioner to own or operate two or more related intellectual properties.

For example, the same product can have a utility patent and a design patent. The same product can have a patent and a trademark. The same software can hold a copyright and be a trade secret. The same employee procedures manual can hold a copyright and be a trade secret. The same set of drawings and schematics can be included within a patent, have a copyright, and be a trade secret.

Because the professional practice, company, or practitioner can own two or more related intellectual properties, the analyst may be asked to develop values for each individual intellectual property. That is, the analyst may also be asked to value an individual intellectual property for income tax accounting, property tax accounting, financial accounting, and many other purposes.

In addition, in disputes related to infringement or breach of contract, it is often possible for two or more intellectual property assets to be damaged by the wrongful action. The analyst may be asked to measure or allocate the damages amount among the affected intellectual property.

Of course, the damages analysis should consider each of the affected intellectual properties. And, the damages analysis should not double count the amount of damages by assigning the same damages measurement to two or more intellectual property assets.

Within multinational or multistate professional practices, different business units in different taxing jurisdictions can own different intellectual property. For example, a product design could benefit from a utility or design patent in country alpha, the product could be manufactured with a trade secret in country beta, and a trademark could be assigned to the final product in country gamma.

Such multinational or multistate professional practices may analyze the intercompany transfer price considerations of each intellectual property application.

General Reasons to Value Intellectual Property

An analyst may be asked to develop the professional practice intellectual property valuation for many general reasons.

The categories of such general reasons include the following:

1. Financial accounting: Fair value measurements for acquisition accounting and intangible asset periodic impairment testing
2. Income tax accounting: Valuations for a contribution from an owner to a practice/company/practitioner or of a distribution from a practice/company/practitioner to an owner, a charitable contribution, abandonment deduction, taxpayer solvency or insolvency analysis, or the purchase price allocation in a taxable acquisition
3. Property tax accounting: Valuations of the practice or company or practitioner

intangible property that are either subject to property tax or exempt from property tax

4. Bankruptcy: Valuations for post-bankruptcy fresh start accounting, determining value of debt collateral, reasonably equivalent value of assets transferred into or out of the bankruptcy estate, fairness of the price of a bankruptcy estate's asset sale, and debtor practice/company/practitioner solvency or insolvency analysis
5. Fairness of transaction price: Analysis of intellectual property transactions between any two arm's-length parties, between a parent practice/company/practitioner and a less-than-wholly-owned business unit, and between a for-profit entity and a not-for-profit entity
6. Forensic analysis: There are numerous contract-related and tort-related disputes that involve intellectual property valuations or damages measurement analyses, including breach of a development or commercialization contract, eminent domain and expropriation, infringement, tortious interference with business opportunity, and various other tort claims

The preceding list presents many (but not all) of the typical transactional, notational, and controversy reasons to value the professional practice or professional services company intellectual property. The purpose of this listing is to demonstrate that there are numerous commercial reasons to value the professional practice owner/operator's intellectual property.

Related to all of these reasons, the professional practice owners and advisers should be aware that there are professional analysts who apply generally accepted intellectual property valuation approaches, methods, and procedures to the intellectual property valuation process. These analysts comply with promulgated valuation professional organization ("VPO") standards and rely upon a body of knowledge documented in a set of professional literature.

In particular, forensic analysts (including damages measurement analysts) should be familiar with these reasons, approaches, and standards. Parties to intellectual-property-related disputes (and their legal counsel) often claim that intellectual property valuation is some type of litigation-driven exercise.

In fact, intellectual property valuation is not the invention of one or more parties who are trying to gain some sort of an advantage in a dispute. Rather, intellectual property valuations (developed for litigation or any other purpose) should be based on:

1. generally accepted approaches, methods, and procedures and
2. recognized VPO professional standards and practices.

Generally Accepted Intellectual Property Valuation Approaches and Methods

All of the generally accepted intangible asset valuation approaches are applicable to the practice/company/practitioner intellectual property. This discussion section introduces the cost approach, market approach, and income approach.

A more fulsome explanation of these intellectual property valuation approaches and methods is presented later in this discussion.

Cost approach valuation methods are particularly applicable to the contributory (or backroom) types of intellectual property. Market approach valuation methods are particularly applicable to intellectual property that is (or could be) licensed. And income approach valuation methods are particularly applicable to intellectual property that produces a measurable amount of operating income for the owner/operator.

The cost approach is often applicable to the valuation of (1) trade secret proprietary information and (2) copyrights on internal use software.

For example, the cost approach may be applied to value the professional practice or professional services company procedure manuals, training manuals, technical documentation and drawings, internal use training films, confidential books and records, confidential customer or supplier files, or the source code for internal use computer software.

For these types of intellectual property, it may be difficult for the analyst (1) to assemble comparable uncontrolled transaction ("CUT") sale or license data or (2) to identify intellectual-property-specific income measures.

The market approach is often applicable to the valuation of patents, trademarks, and certain copyrights. For such intellectual property, it is fairly typical for the owner/developer to license the use of the intellectual property to a third-party asset operator.

The various forms of royalty payments from the licensee to the licensor (for example, royalty as a percent of revenue, as a percent of income, or on

a per unit basis) may be used to estimate the intellectual property value.

The income approach is often applicable to the valuation of patented or unpatented (trade secret) processes or technologies. The income approach is also applicable to the valuation of certain trademarks and copyrights.

For example, it may be applicable if the patented product or process (or the trade secret product formulation in process) allows the practice or company owner to generate increased revenue or experience decreased costs. This income measure may occur when the practice or company owner/operator experiences increased unit sales or increased unit selling prices due to the proprietary feature.

Alternatively, this income measure may occur if the practice or company owner/operator experiences decreased operating expenses or decreased other expenses due to a property process.

The income approach may be applied in the valuation of copyrights related to books, plays, musical compositions, or films and film libraries. This is because the analyst can often identify a measurable stream of income associated with the commercialization of the copyrighted work.

Family Law Intellectual Property Valuations

Disputes related to professional practice or professional services company or practitioner intellectual property are fairly frequent within the context of family law. That is, the individual practitioner may own/operate the intellectual property. Or, the practitioner may own an equity interest in the professional practice or professional services company that owns/operates the intellectual property.

Therefore, the following discussion summarizes several reasons why the analyst may be asked to value professional-practice-related intellectual property within a family law context.

Reason 1: Individual Practitioner Intellectual Property as a Nonmarital Asset

Some jurisdictions consider property that a practitioner spouse brings into a marriage to be nonmarital property. In such an instance, the analyst may be asked to value the intellectual property that was owned by one of the marital parties as of the marriage date.

The analyst may also be asked to value that separate (nonmarital) intellectual property as of a current (say, separation or dissolution) date. Some jurisdictions consider the appreciation in the value of such an intellectual property to be a nonmarital asset.

Reason 2: Individual Practitioner Intellectual Property as a Marital Asset

When the intellectual property was developed or purchased during the marriage, it is often a marital asset. The analyst may be asked to value the individual intellectual property (or the portfolio of intellectual property assets) as of a current (say, separation or dissolution) date.

The appropriate standard of value is jurisdiction-specific. The value of such a practitioner's intellectual property would be subject to equitable distribution. While the statutory standard of value will vary by jurisdiction, many jurisdictions consider a market-derived standard of value to be appropriate for family law purposes.

Reason 3: Intellectual Property Owned/Operated in the Family-Owned Practice or Company

Often, intellectual property assets are an important value driver in a professional practice or professional services company that is part of the marital estate. In such an instance, the practice or company equity ownership interest is the marital asset.

Often, the analyst may apply income approach or market approach business valuation methods to value the subject equity interest. However, the asset-based approach is also a generally accepted business (professional practices) valuation approach.

In particular, the asset accumulation method (of the asset-based approach) may be used to identify and value an underutilized intellectual property that is owned/operated within the family-owned professional practice or professional services company.

Reason 4: Intellectual Property Highest and Best Use Issues

Typically, all assets of the marital estate should be valued at their highest and best use ("HABU"). This statement is also true of any marital intellectual property—whether the intellectual property is owned (1) directly by the practitioner in the marital estate or (2) indirectly through professional practice ownership interest.

HABU issues often arise with regard to underutilized (or undercommercialized) intellectual

property. This issue arises when the marital estate owns, say, a patent or copyright that is in limited use.

For example, the intellectual property may be used by one company, in one product, and in one geographic territory. However, the HABU of the subject intellectual property may be for numerous licenses to numerous operator/licensees for use in multiple products in multiple geographic territories.

The same HABU concept holds for an intellectual property owned by the family-owned professional practice or professional services company. The subject trademark, technology, or software may be used exclusively by the family-owned professional practice or professional services company.

However, the HABU of those intellectual property assets is to both use them in the family professional practice or professional services company and license them for noncompetitive uses to various licensees.

Whether the intellectual property is owned directly or indirectly by the marital estate, the analyst should consider the HABU of the subject intellectual property.

Reason 5: Intellectual Property as a Nonmarital Asset of a Marital Business

As mentioned above, an analyst often has to value a professional practice or professional services company as part of the marital estate. And, the analyst often has to consider the entity's intellectual property in the valuation of that family-owned professional practice or professional services company.

Occasionally, the analyst encounters a situation where the practice or company is formed after the marriage (and is a marital asset). However, the intellectual property was created before the marriage (and is a nonmarital asset) and was contributed to the family practice or company after the marriage.

For example, let's assume that an inventor spouse creates a proprietary product formula or computer software before the inception of the marriage. The married couple then starts a practice or company, and the inventor contributes his or her intellectual property to the start-up practice or company.

Let's assume that the start-up practice or company flourishes during the term of the marriage. The analyst may be asked to value the portion of the practice or company value that is the nonmarital asset—in other words, that is related to the value contribution of the nonmarital intellectual property.

Reason 6: Measuring Supernormal Practice/Company Appreciation Due to Intellectual Property

Some jurisdictions treat the supernormal appreciation in the value of the family-owned practice or company to be a nonmarital asset. This situation usually occurs when the subject practice or company was owned by one spouse before the marriage.

The normal level of practice or company appreciation during the marital period is usually considered to be a marital asset. Any supernormal amount (above the normally expected amount) of practice or company appreciation during the marital period may be considered a nonmarital asset.

This would be the case if the supernormal practice or company appreciation is due to the extraordinary efforts or talents of the spouse who owned the business interest prior to the marriage. This nonmarital asset issue also occurs when one spouse owned an intellectual property prior to the marriage.

If the extraordinary amount of practice or company appreciation is due to the entity's use of the nonmarital intellectual property, then that extraordinary (above normal) amount of practice or company appreciation may be considered a nonmarital asset.

Reason 7: Analysis of Intellectual Property as an Income-Producing Asset

Sometimes, the analyst is asked to analyze the income-producing capacity of the spouse practitioner's intellectual property. This analysis may consider both:

1. the operating and license income currently generated by the family intellectual property and
2. any additional operating and license income that the family intellectual property could generate at its HABU.

The purpose of this type of income capacity analysis is to prove (or disprove) that the working spouse practitioner will have sufficient cash (from the intellectual property income) to pay alimony, child support, and/or other payments to the nonworking spouse.

Reason 8: Intellectual Property Rights as Part of the Marital Estate Distribution

It is often difficult to make an equitable distribution of the marital equity interest in a family-owned practice or company. This situation is particularly the case when there is one working spouse and one nonworking spouse.

In such an instance, the working spouse may not want the nonworking spouse to own (and control) say, 50 percent of the equity in the practice or company. Nonetheless, the nonworking spouse may be entitled to 50 percent of the value of the family business. In addition, the nonworking spouse may not trust the working spouse to manage the value (and distribute the income) of the practice or company.

In order to avoid distributing the actual equity shares of the practice or company, settlement arrangements may be agreed to so that the nonworking spouse receives contractual income interests in the practice or company intellectual property.

Effectively, these marital dissolution settlement agreements become intellectual property licenses. The present value of the expected license income should equal the value of the practice or company equity interest due to the nonworking spouse.

With such an agreement, the working spouse retains control of the subject professional practice or professional services company. And, the nonworking spouse receives a valuable intangible asset and a fairly predictable license income stream.

The analyst may be called on to value the intellectual property and to structure the license agreement terms (including the intellectual property license royalty rate).

Developing the Intellectual Property Valuation Approaches and Methods

This discussion section describes and illustrates the three generally accepted intellectual property valuation approaches, specifically, the cost approach, the market approach, and the income approach. In addition, this discussion section describes the intellectual property valuation synthesis and conclusion process.

The following discussion section summarizes the analyst's typical intellectual property due diligence considerations.

Intellectual Property Due Diligence Considerations

When the valuation analysis relates to any type of professional practice any type of professional services company, or any type of individual practitioner, the analyst should understand the attributes of the subject intellectual property.

The analyst may develop an understanding of the practice or company or practitioner intellectual property attributes by answering the following functional analysis due diligence questions:

1. What are the property rights related to the intellectual property? What are the functional attributes of the intellectual property?
2. What are the operational or economic benefits of the intellectual property to its current practice or company owner/operator? Will those operational or economic benefits be any different if the intellectual property is in the hands of a third-party owner/operator?
3. What is the current utility of the intellectual property? How will this utility change in response to changes in the relevant market conditions? How will this utility change over time? What industry, competitive, economic, or technological factor will cause the intellectual property utility to change over time?
4. Is the intellectual property typically owned or operated as a stand-alone asset? Or is the intellectual property typically owned or operated as (a) part of a bundle with other tangible assets or intangible assets or (b) part of a going-concern practice or company business entity?
5. Does the intellectual property utility (however measured) depend on the operation of tangible assets or other intangible assets or the operation of a practice or company business entity?
6. What is the intellectual property HABU?
7. How does the intellectual property affect the income of the practice or company or practitioner owner/operator? This inquiry may include consideration of all aspects of the owner/operator's revenue, expense, and investments.
8. How does the intellectual property affect the risk (both operational risk and financial risk) of the practice or company or practitioner owner/operator?

9. How does the intellectual property affect the competitive strengths, weaknesses, opportunities, and threats of the practice or company or practitioner owner/operator?
10. Where does the intellectual property fall within its own life cycle, the overall life cycle of the owner/operator, the life cycle of the owner/operator industry, and the life cycle of both competing intellectual property and substitute intellectual property?

These inquiries do not present an exhaustive list of functional analysis due diligence considerations. However, this due diligence gives the analyst a starting point for understanding:

1. the use and function of the practice or company or practitioner intellectual property and
2. the attributes that create value in the intellectual property.

Intellectual Property Value Attribute Considerations

Numerous factors may affect the professional practice, professional services company, or individual practitioner intellectual property value. Industry, product, and service considerations provide a wide range of positive and negative influences on intellectual property value. To the extent possible, the analyst qualitatively and quantitatively considers each of these factors.

Exhibit 1 presents some of the attributes that the analyst considers in the professional practice intellectual property valuation. Exhibit 1 also provides an indication of how these attributes may influence the professional practice intellectual property value.

Not all of the Exhibit 1 factors apply to every intellectual property owned/operated by every professional practice action, and each attribute does not have an equal influence on the intellectual property. However, the analyst typically considers each of these factors.

These professional practice or professional services company or individual practitioner intellectual property considerations can be either quantitative or qualitative. They may be either separately documented in the valuation analysis work papers or performed as one component of the overall valuation analysis.

These considerations allow the analyst to assess the influence of these factors, either positive or negative, on the professional practice or professional services company or individual practitioner intellectual property value.

Some of the other factors that the analyst may consider include the following:

1. The legal rights associated with the intellectual property
2. The industry or profession in which the intellectual property is used
3. The economic characteristics of the intellectual property
4. The reliance of the practice or company owner/operator on tangible assets or other intangible assets
5. The expected impact of regulatory policies or other external factors on the commercial visibility or marketability of the intellectual property

Applying the Intellectual Property Valuation Methods

The analyst typically attempts to apply all valuation approaches and methods to value the professional practice or professional services company or individual practitioner intellectual property.

When that is possible, the analyst can develop mutually supportive evidence and a multifaceted perspective regarding the intellectual property value. However, due to data constraints, it is typical for an analyst to rely on only one or two approaches or methods in the intellectual property valuation process.

The following section summarizes the cost approach methods, the market approach methods, and the income approach methods. And, this section summarizes the analyst's process of reconciling multiple value indications into a final intellectual property value conclusion.

Cost Approach Valuation Methods

There are several intellectual property valuation methods within the cost approach. Each valuation method applies a specific definition of cost.

Two of the typical cost definitions—or cost measurement metrics—include:

1. reproduction cost new and
2. replacement cost new.

Reproduction cost new is the total cost, at current prices, to develop an exact duplicate of the subject intellectual property. Replacement cost new is the total cost, at current prices, to develop an asset

Exhibit 1
Illustrative List of Professional Practice or Professional Services Company or Individual Practitioner Intellectual Property Attributes

Item	Attribute	Influence on Value	
		Positive	Negative
1	Age—absolute	Newly created, state-of-the-art intellectual property	Long-established, dated intellectual property
2	Age—relative	Newer than the competing intellectual property	Older than the competing intellectual property
3	Use—consistency	Intellectual property that is proven or used consistently on products and services	Intellectual property that is unproven or used inconsistently on products and services
4	Use—specificity	Intellectual property that can be used on a broad range of products and services	Intellectual property that can be used only on a narrow range of products and services
5	Use—industry	Intellectual property that can be used in a wide range of industries or professions	Intellectual property that can be used only in a narrow range of industries or professions
6	Potential for expansion	Unrestricted ability to use the intellectual property on new or different products and services	Restricted ability to use the intellectual property on new or different products and services
7	Potential for exploitation	Unrestricted ability to license the intellectual property into new Industries/professions and uses	Restricted ability to license the intellectual property into new industries/professions and uses
8	Proven use	Intellectual property has proven application	Intellectual property does not have proven application
9	Proven exploitation	Intellectual property has been commercially licensed	Intellectual property has not been commercially licensed
10	Profitability—absolute	Profit margins or investment returns on related products and services higher than the industry/profession average	Profit margins or investment returns on related products and services lower than the industry/profession average
11	Profitability—relative	Profit margins or investment returns on related products and services higher than the competing intellectual property	Profit margins or investment returns on related products and services lower than the competing intellectual property
12	Expense of continued development	Low cost to maintain the intellectual property as state-of-the-art	High cost to maintain the intellectual property as state-of-the-art
13	Expense of commercialization	Low cost of bringing the intellectual property to commercial exploitation	High cost of bringing the intellectual property to commercial exploitation
14	Means of commercialization	Numerous means available to commercialize the intellectual property	Few means available to commercialize the intellectual property
15	Market share—absolute	Products and services using the intellectual property have high market share	Products and services using the intellectual property have low market share
16	Market share—relative	Products and services using the intellectual property have higher market share than competing products and services	Products and services using the intellectual property have lower market share than competing products and services
17	Market potential—absolute	Products and services using the intellectual property are in an expanding market	Products and services using the intellectual property are in a contracting market
18	Market potential—relative	Market for products and services using the intellectual property expanding faster than the competing intellectual property	Market for products and services using the intellectual property expanding slower than the competing intellectual property
19	Competition	Little or no competition for the intellectual property	Considerable established competition for the intellectual property
20	Perceived demand	Perceived currently unfilled need for the intellectual property	Little or no perceived need for the intellectual property

having the same functionality or utility as the actual intellectual property.

Functionality is an engineering concept that means the ability of the intellectual property to perform the task for which it was originally designed. Utility is an economics concept that means the ability of the intellectual property to provide an equivalent amount of satisfaction.

There are also other cost definitions—or cost measurement metrics—that may be applicable to a cost approach valuation. Some analysts consider cost avoidance as a cost approach measure. However, cost avoidance analyses are typically considered to be income approach methods. This cost measure quantifies either historical or prospective costs that are avoided because the practice or company owner/operator actually owns the intellectual property.

Some analysts consider trended historical costs as a cost approach measure. In this cost measure, historical intellectual property development costs are identified and trended to the valuation date by an inflation-based index factor. Regardless of the specific cost measure used, all cost approach methods include a comprehensive definition of cost.

The cost measurement (whether replacement cost new, reproduction cost new, or some other cost measurement metric) typically includes the following four cost components:

1. Direct costs (e.g., materials)
2. Indirect costs (e.g., engineering and design labor)
3. The intellectual property developer's profit (on the direct cost and indirect cost investment)
4. An opportunity cost/entrepreneurial incentive (to motivate the development process)

Typically, the intellectual property development material, labor, and overhead costs are easy to identify and quantify.

The developer's profit can be estimated using several procedures. It is often estimated as a percentage rate of return on the total investment in the material, labor, and overhead costs.

The entrepreneurial incentive is often measured as the owner/operator's lost profits during the replacement intellectual property development period.

For example, let's assume it will take two years to develop a replacement patent. If the buyer buys the seller's actual patent, then the buyer can start earning income (either operating income or license income) immediately. If the buyer "builds" its own hypothetical replacement patent, then the buyer will not earn any income (operating income or license income) during the two-year development period.

The two years of owner/operator lost profits during the hypothetical patent development period represents the opportunity cost of developing a new replacement patent—compared to buying the actual seasoned patent.

All four cost components—that is, direct costs, indirect costs, developer's profit, and opportunity cost—should be considered in the intellectual property cost approach valuation. So, while the cost approach is different from the income approach, there are economic analyses included in the cost approach.

These economic analyses provide indications of both:

1. the appropriate levels of development period opportunity cost (if any) and
2. the appropriate amount of economic obsolescence (if any).

The intellectual property cost metric (however measured) should be adjusted for losses in value due to:

1. physical deterioration,
2. functional obsolescence, and
3. economic obsolescence.

Physical deterioration is the reduction in value due to physical wear and tear. It is unlikely that a professional practice intellectual property will experience physical deterioration.

Functional obsolescence is the reduction in value due to the intellectual property's inability to perform the function (or yield the periodic utility) for which it was originally designed. The technological component of functional obsolescence is a decrease in value due to improvements in technology that make the intellectual property less than the ideal replacement for itself.

Economic obsolescence is a reduction in value due to the effects, events, or conditions that are external to—and not controlled by—the intellectual property current use or condition. The impact of economic obsolescence is typically beyond the control of the practice or company owner/operator.

In any cost approach analysis, the analyst estimates the amounts (if any) of intellectual property physical deterioration, functional obsolescence, and economic obsolescence. In this estimation, the

analyst considers the intellectual property actual age—and its expected useful economic life ("UEL").

A typical cost approach formula for quantifying intellectual property replacement cost new is: reproduction cost new – curable functional obsolescence = replacement cost new.

To estimate the intellectual property value, the following cost approach formula may be applied: replacement cost new – physical deterioration – economic obsolescence – incurable functional obsolescence = intellectual property value.

Cost Approach Illustrative Example

Exhibits 2 and 3 present a simplified illustrative example of the application of the cost approach to value intellectual property.

In this example, the analyst is asked to estimate the fair market value of the copyrights and trade secrets related to the hypothetical Alpha Professional Services, LLC ("Alpha"), internally developed computer software.

All of the Alpha internally developed computer software is subject to copyright protection. And, the Alpha software source code and the systems documentation and user manuals are treated as company trade secrets.

The analyst is instructed that the appropriate valuation date for the analysis is January 1, 2022.

The analyst decided to apply the cost approach and the replacement cost new less depreciation valuation method.

Exhibit 2 includes the analysis of all four cost components of the cost approach. Exhibit 2 also illustrates the analyst's functional obsolescence considerations. Exhibit 3 presents the detailed calculation of one cost component of the cost approach: the developer's profit analysis.

Based on the cost approach analysis summarized in Exhibit 2, the analyst concludes that the fair market value of the hypothetical Alpha internally developed software copyrights and trade secrets, as of January 1, 2022, is $200 million.

Market Approach Valuation Methods

The analyst typically attempts to apply market approach methods first in the intellectual property valuation. This is because the market—that is, the economic environment where arm's-length transactions between unrelated parties occur—is often considered to provide the best indicator of value.

However, the market approach will only provide meaningful valuation evidence when the intellectual property is sufficiently similar to the intellectual properties that are transacting (by sale or license) in the marketplace.

In that case, the guideline intellectual property transaction (sale or license) prices may indicate the expected price for the subject intellectual property.

There are two principal market approach intellectual property valuation methods:

1. The CUT method
2. The comparable profit margin ("CPM") method

In the CUT method, the analyst searches for arm's-length sales or licenses of benchmark intellectual property. In the CPM method, the analyst searches for companies that provide benchmarks to the owner/operator company.

In the CUT method, the analyst will more likely rely on CUT license transactions than on sale transactions. This is because third-party licenses of intellectual property are more typical than third-party sales of intellectual property. Nonetheless, for both sale and license transactions, the analyst will follow a systematic process in the CUT method valuation.

First, the analyst researches the appropriate exchange markets to obtain information about sale or license transactions involving guideline (i.e., similar from an investment risk and expected return perspective) or comparable (i.e., almost identical) intellectual property that may be compared to the marital estate intellectual property. Some of the comparison attributes include the intellectual property type, intellectual property use, industry in which the intellectual property operates, date of sale or license, and so forth.

Second, the analyst verifies the transactional information by confirming that:

1. the transactional data are factually accurate and
2. the sale or license exchange transactions reflect arm's-length market considerations.

If the guideline sale or license transaction was not conducted at arm's-length market conditions, then adjustments to the transactional data may be necessary.

This verification procedure may also elicit additional information about the current market conditions for the sale or license of the professional practice intellectual property.

Third, the analyst selects relevant units of comparison (e.g., income pricing multiples or dollars per unit—such as "per drawing" or "per line of code").

Exhibit 2
Alpha Professional Services, LLC
Computer Software Copyrights and Trade Secrets
Cost Approach—Replacement Cost New less Depreciation Method
Valuation Summary
As of January 1, 2022

Software System	Estimated Software Replacement Development Effort in Person-Months [a]	Time to Develop Replacement Software (in Calendar-Months) [b]	Indicated RCNLD Component [c] $000
AS/400	4,531	29	66,100
Point of Sale	575	25	8,400
Tandem	3,304	16	48,200
Unisys	1,229	5	17,900
Pioneer	1,807	41	26.400
Voyager	325	12	4,700
Host to Host	85	9	1,200
Total Direct Costs and Indirect Costs	11,856	24	172,900
Plus: Developer's Profit [d]			10,500
Plus: Entrepreneurial Incentive [e]			31,200
Equals: Total Replacement Cost New			214,600
Less: Depreciation and Obsolescence [f]			13,300
Equals: Replacement Cost New less Depreciation			201,300
Indicated Fair Market Value of the Alpha Software-Related Copyrights and Trade Secrets (rounded)			200,000

[a] The estimated development effort for each Alpha software category is equal to the average of the replacement development effort indication using (1) the COCOMO software cost engineering model and (2) the KnowledgePLAN software cost engineering model, rounded.

[b] The estimated time to develop replacement software in calendar months for each software category is equal to the average of the time to develop the replacement software in calendar months using (1) the COCOMO software engineering model and (2) the KnowledgePLAN software engineering model, rounded. The final figure in this column represents a weighted average time to develop the replacement software in calendar months (weighted by effort in person months), which is used to calculate the entrepreneurial incentive.

[c] Equal to the estimated development effort in person months multiplied by the $14,585 cost per person month, rounded. The $14,585 cost per person month was calculated by multiplying the blended hourly rate of $82.87 provided by the Alpha vice president of data processing by 176 (8 hours per day times 22 days per month).

[d] Calculated as (1) total direct replacement cost new times (2) a computer software developer's profit margin of 11 percent times 55 percent. This adjustment is made because 45 percent of software development workforce represents outside contractors, the cost of which already includes a market-based developer's profit.

[e] Calculated as (1) the Alpha present value discount rate of 17 percent times (2) the sum of the total direct and indirect replacement cost new and the developer's profit, divided by 2 times (3) the weighted average total development time of 2 years (based on the weighted average time to develop in person months of 24 months as described in footnote [b]).

[f] According to Alpha data processing management, the Point of Sale system is scheduled to be replaced and upgraded in approximately five years. The Pioneer system is also scheduled to be replaced and upgraded in approximately five years. And, the Voyager system is scheduled to be substantially upgraded next year. Therefore, the analyst estimated functional obsolescence as follows:

System Scheduled for Replacement	Replacement Cost New*	Percent Obsolete	Obsolescence Allowance
Point of Sale	$10,400,000	20%	$2,100,000
Pioneer	$32,700,000	20%	$6,500,000
Voyager	$5,800,000	80%	$4,700,000
Total			$13,300,000

*Includes the developer's profit and entrepreneurial incentive cost components.

Exhibit 3
Alpha Professional Services, LLC
Computer Software Copyrights and Trade Secrets
Cost Approach—Replacement Cost New less Depreciation Method
Estimate of Computer Software Developer's Profit
As of January 1, 2022

Operating Profit Margin Comparison		Operating Profit Margins		
		4/1/20–3/31/21	4/1/19–3/31/20	4/1/18–3/31/19
Selected Industry Sectors				
GICS Code 7371 - Custom Computer Programming Services - All Companies	[a]	4.2%	4.2%	4.8%
GICS Code 7371 - Custom Computer Programming Services - Sales of $25 Million +	[a]	7.4%	3.8%	2.2%
GICS Code 7373 - Computer Systems Design Services - All Companies	[b]	4.3%	3.1%	2.1%
GICS Code 7373 - Computer Systems Design Services - Sales of $25 Million +	[b]	4.7%	4.3%	1.1%

			Adjusted Operating Profit Margins			
Selected Guideline Public Companies	Ticker		For 2021/2020	For 2020/2019	For 2019/2018	Three-Year Average
Accenture plc	ACN	[c]	11.6%	11.4%	11.6%	11.5%
Analysts International Corp.	ANLY	[c]	-0.5%	0.5%	0.8%	0.3%
Bearing Point Ind.	BGPT	[c]	4.8%	6.7%	8.7%	6.7%
Cap Gemini Ernst & Young Group	CGEY	[c]	-0.1%	4.7%	9.8%	4.8%
Cognizant Technology Solutions Corp.	CTSH	[c]	19.7%	20.0%	19.1%	19.6%
Computer Sciences Corporation	CSC	[c]	6.6%	5.6%	6.2%	6.1%
Electronic Data Systems Corp.	EDS	[c]	8.7%	10.3%	9.5%	9.5%
Infosys Technologies Ltd.	INFY	[c]	29.0%	32.7%	33.2%	31.7%
Perot Systems Corp.	PER	[c]	10.2%	6.1%	6.7%	7.6%
Unisys Corporation	UIS	[c]	7.5%	4.5%	6.2%	6.1%
Wipro Ltd.	WIT	[c]	21.1%	23.8%	22.8%	22.6%

Selected Guideline Public Companies			
High Profit Margins	29.0%	32.7%	33.2%
Low Profit Margins	-0.5%	0.5%	0.8%
Median Profit Margins	8.7%	6.7%	9.5%
Average (Mean) Profit Margins	10.8%	11.5%	12.2%

Selected Computer Software Developer's Profit Margin: 11%

[a] The Risk Management Association 2021–2020, 2020–2019, and 2019–2018 *Annual Statement Studies* - Custom Computer Programming Services.

[b] The Risk Management Association 2021–2020, 2020–2019, and 2019–2018 *Annual Statement Studies* - Computer Systems Design Services.

[c] S&P Capital IQ database.

Note: All of these data are hypothetical and are presented for illustrative purposes only.

And, the analyst will develop a comparative analysis for each selected unit of comparison.

Fourth, the analyst compares the selected guideline or comparable intellectual property sale or license transactions with the professional practice intellectual property using the selected elements of comparison.

Then, the analyst adjusts the sale or license price of each guideline transaction for any differences between the guideline intellectual property and the professional practice intellectual property. If such comparative adjustments cannot be measured, then the analyst may eliminate the sale or license transaction as a guideline for future valuation consideration.

Fifth, the analyst selects pricing metrics for the professional practice intellectual property from the range of pricing metrics indicated from the guideline or comparable transactions. The analyst may select pricing multiples in the low end, midpoint, or high end of the range of pricing metrics indicated by the transactional sale or license data.

The analyst selects the subject-specific pricing metrics based on the analyst's comparison of the professional practice intellectual property to the guideline intellectual property.

Sixth, the analyst applies the selected subject-specific pricing metrics to the subject intellectual property financial or operational fundamentals (e.g., revenue, income, number of drawings, number of lines of code, etc.). This procedure typically results in several market-derived value indications for the professional practice intellectual property.

Seventh, the analyst reconciles the various value indications provided by the analysis of the guideline sale and/or license transactions into a single market approach value indication.

In this final reconciliation procedure, the analyst summarizes and reviews:

1. the transactional data and
2. the quantitative analyses (i.e., the various pricing metrics) that resulted in each value indication.

Finally, the analyst resolves these value indications into a single value indication.

Exhibit 4 describes several of the databases that the analyst may search in order to select intellectual property sale or license CUTs. This is not an exhaustive list.

Exhibit 5 describes several of the print sources that the analyst may search in order to select intellectual property sale or license CUTs.

Of course, the analyst may confer with the practice or company or practitioner owner/operator to explore whether the owner/operator has entered into any intellectual property license agreements (either inbound or outbound). These practice or company or practitioner owner/operator license agreements could relate to either the actual intellectual property or to comparable intellectual property.

The CPM method is also based on a comparative analysis. However, in this valuation method, the analyst does not rely on the sales and licenses Rather, the analyst searches for comparable or guideline companies.

The objective of the CPM method is to identify guideline companies that are comparative to the professional practice or professional services company or individual practitioner owner/operator in all ways except one. The practice or company owner/operator, of course, owns the actual intellectual property. Ideally, the selected guideline companies should provide a meaningful benchmark to the practice or company or practitioner owner/operator—except that the guideline companies do not own comparable intellectual property.

Ideally, the CPM method guideline companies operate in the same industry or profession as the owner/operator company. Ideally, the guideline companies have the same types of raw materials and the same types of sources of supply. Ideally, the guideline companies have the same type of customers. Ideally, the guideline companies produce the same type of products or services.

And, ideally, the only difference should be that the practice or company or practitioner owner/operator has an established trademark and the guideline companies have generic trademarks. Or, the practice or company or practitioner owner/operator owns the actual patent and the guideline companies produce unpatented (and presumably inferior) products.

Because of the economic benefit that the intellectual property provides, the practice or company or practitioner owner/operator should earn a higher profit margin than the selected guideline companies. This profit margin comparison is usually made at the earnings before interest and taxes (or "EBIT") level of income. This EBIT margin typically reflects the pretax operating income of the comparative companies—a measure of income that the intellectual property can influence.

The incremental (or superior) profit margin earned by the owner/operator can then be converted into an intellectual property implied royalty rate.

Typically, all of the excess profit margin is assigned to the intellectual property (if the

Exhibit 4
Market Approach
Comparable Uncontrolled Transaction Method
Intellectual Property License Transaction Royalty Rate Automated Databases

RoyaltySource
www.royaltysource.com—AUS Consultants produces a database that provides intellectual property license transaction royalty rates. The database can be searched by industry, technology, and/or keyword. The information provided includes the license royalty rates, name of the licensee and the licensor, a description of the intellectual property licensed (or sold, if applicable), the transaction terms, and the original sources of the information provided. Preliminary CUT results are available online and a final report is sent to the subscriber via e-mail.

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. It is searchable by SIC code or by full text. The CUT results can be viewed online or archived. The intellectual property transaction database is updated daily. The full text of each intellectual property license agreement in the database is available.

Royalty Range
www.royaltyrange.com—RoyaltyRange consists of manually gathered and analyzed data. RoyaltyRange reports contain more than 50 detailed standardized comparability factors on royalty rates and license terms. Each report is supplemented with original unredacted agreements, as well as filings and other types of documents. The RoyaltyRange database focuses on European transactions, but also contains some U.S. transactions. It excludes agreements between related parties, agreements with undisclosed remuneration mechanisms, royalty-free agreements, agreements where royalties are expressed in other forms than percentage, and agreements with individuals, universities, and other noncommercial entities.

ktMINE
www.ktmine.com—ktMINE is an interactive intellectual property database that provides direct access to license royalty rates, actual license agreements, and detailed agreement summaries. The database contains over 125,000 intellectual property license agreements. The intellectual property license database is updated frequently. License agreements are searchable by industry, keyword, and various other parameters. The full text of each intellectual property license agreement is available. This database is also available through Business Valuation Resources.

Exhibit 5
Market Approach
Comparable Uncontrolled Transaction Method
Intellectual Property License Transaction Royalty Rate Print Sources

RoyaltySource publishes an annual Royalty Rates Industry Summary. The Royalty Rate Industry Summary provides benchmark royalty rate measures covering 15 industries from over 30 years of data. Average, median and interquartile range (IQR) royalty rate measures by industry are included.

Gregory J. Battersby and Charles W. Grimes annually author a book called *Licensing Royalty Rates*, which is published by Wolters Kluwer. This reference tool provides intellectual property license royalty rates for 1,500 products and services in 9 different licensed product categories: art, celebrity, character/entertainment, collegiate, corporate, designer event, music, nonprofit, and sports.

Intellectual Property Research Associates produces three books that contain information on license royalty rates for patents, trademarks, and copyrights. The books are *Royalty Rates for Trademarks & Copyrights*, *Royalty Rates for Technology*, and *Royalty Rates for Pharmaceuticals & Biotechnology*.

intellectual property is the only reason for the practice or company owner/operator's superior profit margin).

This implied royalty rate (derived from the excess profit margin) is then multiplied by the owner/operator revenue in order to estimate the amount of the incremental income generated from the intellectual property.

This incremental income is capitalized over the intellectual property expected UEL. The result of this capitalization procedure is an estimate of the professional practice intellectual property value, based on the CPM method.

Exhibit 6 presents a nonexhaustive list of publicly traded company data sources that the analyst may apply to:

1. select guideline companies for the CPM method analysis and
2. obtain guideline company profit margin information to apply in the CPM method analysis.

Exhibit 6
Market Approach
Comparable Profit Margin Method
Typical Data Sources for
Guideline Company Profit Margins

FactSet Research Systems, Inc.—FactSet

Dun & Bradstreet—D&B Hoovers

Mergent, Inc.—MergentOnline

Morningstar, Inc.—Morningstar Equity Research

Standard & Poor's—Capital IQ

London Stock Exchange Group—Refinitiv

Accordingly, there are several market approach intellectual property valuation methods. However, each method is based on comparative analyses of either guideline intellectual property sales, guideline intellectual property license royalty rates, or guideline companies (that own generic intellectual property).

Market Approach Illustrative Example

Finally, Exhibit 7 presents an illustrative example of the application of the market approach in a professional practice intellectual property valuation. In this example, the analyst is asked to estimate the fair market value of the hypothetical Beta Associates, LLC ("Beta"), trademarks and trade names.

Beta is a closely held professional services consulting company that specializes in the telecommunications industry. The analyst is instructed that the appropriate valuation date for the intellectual property valuation is as of January 1, 2022.

The analyst decided to apply the relief from royalty ("RFR") method of the market approach to value the Beta trademarks and trade names.

Based on these CUT data (and a comparative analysis of the Beta trademarks to the selected guideline trademarks), the analyst selected a 2 percent license royalty rate to apply in the RFR method analysis.

Exhibit 8 summarizes the analyst's search for, selection of, and analysis of, CUT trademark license agreements. Like Beta, the CUT trademark license data are all related to the telecommunications industry.

Exhibit 9 summarizes the analyst's calculation of the Beta present value discount rate. This discount rate is used to present value the hypothetical relief from license royalty payment projection over the trademark's expected UEL.

Based on discussions with Beta management and based on research regarding comparable telecommunications industry trademark life cycles, the analyst determined that the average UEL of the subject trademarks was 20 years. Therefore, the trademark valuation is based on a 20-year trademark license royalty income projection period.

Based on the market approach valuation analysis summarized in Exhibit 7, the analyst concluded a fair market value of $840 million for the Beta trademarks and trade names, as of January 1, 2022.

Income Approach Valuation Methods

In this valuation approach, value is estimated as the present value of the future income generated from the ownership/operation of the professional practice intellectual property.

The present value calculation has three principal components:

1. An estimate of the duration of the intellectual property income projection period, typically measured based on the analyst's estimate of the intellectual property UEL

Exhibit 7
Beta Associates, LLC
Trademarks and Trade Names
Market Approach—Relief from Royalty Method
Valuation Summary
As of January 1, 2022

	Projected Calendar Years				
Present Value of Discrete Projection Period for the Trademark License Royalty Expense Relief:	2022 $000	2023 $000	2024 $000	2025 $000	2026 $000
Management-Provided Revenue Projection [a]	8,634,139	8,358,945	8,042,393	7,720,369	7,377,326
Arm's-Length Trademark License Royalty Rate [b]	2%	2%	2%	2%	2%
Projected Pretax Trademark License 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 License Royalty Expense Relief	108,790	105,323	101,334	97,277	92,954
Discounting Periods [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
Present Value of Trademark License Royalty Expense Relief	103,264	90,061	78,068	67,510	58,115
Sum of the Present Value of the Discrete Projection Period Trademark License Royalty Expense Relief	397,018				

Present Value of Terminal Projection Period for the Trademark License Royalty Expense Relief:	
Fiscal 2020 Normalized Trademark License Royalty Expense Relief [f]	$ 92,954
Present Value of an Annuity Factor [g]	7.579
Terminal Value of Trademark License Royalty Expense Relief	704,498
Present Value Factor @ 11%	0.6252
Present Value of Terminal Value for the Trademark License Royalty Expense Relief	$ 440,452
Trademark and Trade Name Valuation Summary:	
Present Value of the Discrete Projection Period of the Trademark License Royalty Expense Relief	$ 397,018
Present Value of the Terminal Projection Period of the Trademark License Royalty Expense Relief	440,452
Indicated Fair Market Value of the Beta Trademarks and Trade Names (rounded)	$ 840,000

[a] Revenue projection provided by Beta management, consistent with the professional services company's long-range financial plan.

[b] Based on an analysis of arm's-length license agreements between independent parties for the license of similar intellectual property, as presented in Exhibit 8.

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

[d] Calculated as if the license royalty expense relief is received at midyear.

[e] Based on the Beta weighted average cost of capital, presented in Exhibit 9.

[f] Based on the 2026 projected after-tax trademark royalty expense relief and an expected royalty expense relief long-term growth rate of 0 percent after the five-year discrete projection period.

[g] Based on a present value of an annuity factor for an 11 percent discount rate and a 15-year terminal period expected UEL; the 15-year UEL is based on a total expected life of 20 years and a 5-year discrete projection period.

Exhibit 8
Beta Associates, LLC
Trademarks and Trade Names
Market Approach—Relief from Royalty Method
CUT Trademark License Transactions
As of January 1, 2022

Trademark Licensor	Trademark Licensee	Comparable Uncontrolled Transaction Trademark License Description	License Term (Years)	License Start Year	License Royalty Rate Range Low	License Royalty Rate Range High	License Upfront/ Flat Fee
Southwestern Bell Telephone	Telco Group	The royalty fee is for the right to use the name, reputation, and public image of the Southwestern Bell Telephone Company.	10	2017	5.0%	5.0%	NA
Cable and Wireless PLC	Hong Kong Telecommunications Ltd.	Cable and Wireless entered into an agreement with a Hong Kong telephone company for the use of its trademarks (in particular, use of the telecommunication name and logo in connection with international business) on relevant products and services.	10	2017	8.0%	8.0%	NA
AT&T Corp.	KIRI Inc.	The licensor grants to the licensee a nonexclusive, nontransferable, non-sub-licensable license to use the licensed marks (AT&T and globe design logo) solely in connection with the marketing, advertising, promotion, and provision of the licensed services (such as telecommunication and internet services) in the licensed territory.	10	2018	2.50%	4.00%	$2.5 million minimum guarantee
Nextel	Nextel Partners	A license between a U.S. company and a publicly owned spin off company for rights to use the Nextel brand name. The licensee owns its own spectrum and provides services as Nextel.	10	2018	0.50%	1.00%	0
France Telecom (Orange Brand Services Limited, UK)	PTK Centertel	PTK Centertel is rebranding its name from Idea to Orange. Idea, which now holds 32.2% of the market, will change its name and logo (trademark). PTK Centertel will pay the France Telecom a royalty for use of the Orange name.	10	2019	1.6%	1.6%	NA
Qwest Communications International, Inc.	Unical Enterprises, Inc.	An exclusive, nontransferable 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. A nonexclusive and nontransferable right to use the following trademarks: B Office, Bell Symbol, Bell mark, Northwestern Bell. All of the above in connection with corded telephones, cordless telephones, answering machines, and telephone/answering devices.	10	2019	2.1%	2.2%	NA
Virgin Enterprises Limited	NTL Inc.	The licensee entered into a trademark license agreement under which it is entitled to use certain Virgin trademarks in the mobile phone telecommunications industry within the United Kingdom and Ireland.	15	2020	0.25%	0.25%	£8.5 million minimum annual royalty

NA = Not applicable
Note: All data are hypothetical and are presented for illustrative purposes only.

Indicated CUT License Agreements Royalty Rate Range

	Low Indications	High Indications
High Rate	8.0%	8.0%
Low Rate	0.3%	0.3%
Mean Rate	2.9%	3.2%
Median Rate	2.1%	2.2%

Exhibit 9 (page 1 of 2)
Beta Associates, LLC
Weighted Average Cost of Capital
As of January 1, 2022

Cost of Equity Capital:

Method #1: Modified Capital Asset Pricing Model (ex post equity risk premium)			**Source**
Risk-Free Rate of Return		4.5%	20-year U.S. Treasury bond, *Federal Reserve Statistical Release*, as of December 31, 2021
General Equity Risk Premium	7.10%		*Stocks Bonds Bills & Inflation*, Morningstar Inc., 2021
Multiplied by: Industry Beta	1.05		
Industry-Adjusted General Equity Risk Premium		7.4%	
Size Equity Risk Premium		0.7%	2nd decile, *Stocks Bonds Bills & Inflation*, Morningstar Inc., 2021
Company-Specific Equity Risk Premium		2.0%	Analyst's functional analysis
Indicated Cost of Equity Capital:		14.6%	

Method #2: Modified Capital Asset Pricing Model (supply side equity risk premium)			**Source**
Risk-Free Rate of Return		4.5%	20-year U.S. Treasury bond, *Federal Reserve Statistical Release*, as of December 31, 2021
General Equity Risk Premium	6.20%		*Stocks Bonds Bills & Inflation*, Morningstar Inc., 2021
Multiplied by: Industry Beta	1.05		
Industry-Adjusted General Equity Risk Premium		6.5%	
Size Equity Risk Premium		0.7%	2nd decile, *Stocks Bonds Bills & Inflation*, Morningstar Inc., 2021
Company-Specific Equity Risk Premium		2.0%	Analyst's functional analysis
Indicated Cost of Equity Capital:		13.7%	

Note: All data are hypothetical and are presented for illustrative purposes only.

Exhibit 9 (page 2 of 2)
Beta Associates, LLC
Weighted Average Cost of Capital
As of January 1, 2022

Cost of Equity Capital (cont.):

Method #3: Kroll Risk Premium Report Model						**Source**
Risk-Free Rate of Return					4.5%	20-year U.S. Treasury bond, the *Federal Reserve Statistical Release*, as of 12/31/21
Equity Risk Premium Over Risk-Free Rate						
	Global Corp. Fundamental	Regression Equation Variables		Risk Prem. Over Risk-		
	$MM	Constant	Coefficient	Free Rate	[a]	
Book Value of Equity	977	17.397%	-2.949%	8.6%		Kroll Risk Premium Report 2021
5-Yr. Avg. Net Income	1,169	14.216%	-2.715%	5.9%		
Total Assets	15,397	18.036%	-2.725%	6.6%		
5-Yr. Avg. EBITDA	4,957	15.583%	-2.709%	5.6%		
Total Revenue	9,877	16.420%	-2.192%	7.7%		
# of Employees (not in mil.)	24,000	17.675%	-2.210%	8.0%		
Median Equity Risk Premium Over Risk-Free Rate					7.1%	
Company-Specific Risk Premium					2.0%	Analyst's functional analysis
Indicated Cost of Equity Capital					13.6%	
Method #4: Build-Up Model						**Source**
Risk-Free Rate of return					4.5%	20-year U.S. Treasury bond, *Federal Reserve Statistical Release*, as of 12/31/21
General Equity Risk Premium					7.2%	*Stocks Bonds Bills & Inflation*, Morningstar Inc., 2021
Industry Equity Risk Premium					0.0%	Morningstar Inc. SIC code 4813, average 2018–2021
Size Equity Risk Premium					0.7%	2nd decile, *Stocks Bonds Bills & Inflation*, Morningstar Inc., 2021
Company-Specific Equity Risk Premium					2.0%	Analyst's functional analysis
Indicated Cost of Equity Capital					14.3%	
Selected Cost of Equity Capital					14.0%	Median of Methods #1–#4 Indicated Cost of Equity Capital

Cost of Debt Capital:

Before Tax Cost of Debt Capital	7.6%		Beta cost of debt
Income Tax Rate	37%		Beta effective income tax rate
Selected Cost of Debt Capital	4.8%		

Weighted Average Cost of Capital Calculation:

Selected Cost of Equity Capital	14.0%		
Multiplied by: Equity/Invested Capital	70%		Based on median of selected guideline public companies (rounded)
Equals: Weighted Cost of Equity Capital	9.8%	10%	
Selected Cost of Debt Capital	4.8%		
Multiplied by: Debt/Invested Capital	30%		Based on median of selected guideline public companies (rounded)
Equals: Weighted Cost of Debt Capital	1.4$	1%	

Weighted Average Cost of Capital (rounded)	**11%**

[a] Estimated as the constant plus the coefficient multiplied by the log of the financial fundamental.
Note: All data are hypothetical and are presented for illustrative purposes only.

2. An estimate of the intellectual-property-related income for each period in the projection, typically measured as either owner income (e.g., the licensor's license royalty income), operator income (e.g., some portion of the operator's practice or company or practitioner income), or both
3. An estimate of the appropriate present value discount rate or direct capitalization rate, typically measured as the required rate of return on an investment in the intellectual property

For purposes of the income approach, the UEL relates to the time period over which the professional practice or professional services company or individual practitioner expects to receive any income related to the intellectual property (1) license, (2) use, or (3) forbearance of use.

In addition to the term of the UEL, the analyst is also interested in the shape of the UEL curve. That is, the analyst is interested in the annual rate of decay of the expected future intellectual property income.

For purposes of the income approach, different intellectual property income measures may be relevant. If properly applied, each of these different income measures can be used in the income approach to derive a value indication.

Some of the different income measures include the following:

1. Gross or net revenue
2 Gross income (or gross profit)
3. Net operating income
4. Net income before tax
5. Net income after tax
6. Operating cash flow
7. Net cash flow
8. Incremental income
9. Differential income
10. Royalty income
11. Excess earnings income
12. Several others (such as incremental income)

Because there are different income measures that may be used in the income approach, it is important for the capitalization rate (either the present value discount rate or the direct capitalization rate) to be derived on a basis consistent with the income measure used.

Regardless of the measure of income considered in the income approach, there are several categories of valuation methods that are typically applied to value professional practice intellectual property:

1. Valuation methods that quantify an incremental level of intellectual property income—that is, the practice or company or practitioner owner/operator will expect a greater level of revenue (however measured) by owning/operating the intellectual property as compared to not owning/operating the intellectual property.

   Alternatively, the practice or company or practitioner owner/operator may expect a lower level of costs—such as capital costs, investment costs, or operating costs—by owning/operating the intellectual property as compared to not owning/operating the intellectual property.
2. Valuation methods that estimate a relief from a hypothetical license royalty expense payment—that is, these RFR methods estimate the amount of hypothetical royalty expense payment that the practice or company or practitioner owner/operator (as licensee) does not have to pay to a third-party licensor for the use of the intellectual property.

   The practice or company owner/operator is "relieved" from having to pay this hypothetical license royalty expense payment for the use of the intellectual property. This is because the practice or company or practitioner owner/operator, in fact, owns the intellectual property.
3. Valuation methods that estimate a residual measure of intellectual property income—that is, these methods typically start with the owner/operator overall practice or company or practitioner income.

   Next, the analyst identifies all of the tangible assets and routine intangible assets (other than the intellectual property) that are used in the practice or company or practitioner owner/operator overall business. These assets are typically called contributory assets.

   The analyst then multiples a fair rate of return times the value of each of the contributory assets. The product of this multiplication is the fair return on all of the contributory assets.

   The analyst then subtracts the fair return on the contributory assets from the practice or company or practitioner owner/operator business enterprise total income. This residual (or excess) income is the

income that is associated with the intellectual property.

4. Valuation methods that rely on a profit split—that is, these methods typically also start with the practice or company or practitioner owner/operator overall business enterprise income.

   The analyst then allocates or "splits" this total income between:

   a. the owner/operator tangible assets and routine intangible assets and
   b. the intellectual property.

   The profit split percent (e.g., 20 percent, 25 percent, etc.) to the intellectual property is typically based on the analyst's functional analysis of the owner/operator business operations.

   This functional analysis identifies the relative importance of (a) the intellectual property and (b) the contributory assets to the production of the owner/operator total practice or company income.

5. Valuation methods that quantify comparative income—that is, these methods compare the practice or company or practitioner owner/operator income to a benchmark measure of income (that, presumably, does not benefit from the use of the intellectual property).

   Some of the typical benchmark income measures include:

   a. the owner/operator income before the intellectual property development,
   b. industry average income levels, or
   c. selected guideline publicly traded company income levels.

   A common measure of income for these comparative analyses is the EBIT margin. This EBIT income is considered to be a pretax measure of operating income. When guideline publicly traded companies are used as the comparative income benchmark, the method is often called the CPM method.

All of these income approach valuation methods can be applied using either the direct capitalization procedure or the yield capitalization procedure.

In the direct capitalization procedure, the analyst:

1. estimates a normalized income measure for one future period (typically, one year) and
2. divides that measure by an appropriate investment rate of return.

The appropriate investment rate of return is called the direct capitalization rate. The direct capitalization rate may be derived for:

1. a perpetuity time period or
2. a specified finite time period.

This decision will depend on the analyst's estimate of the intellectual property UEL.

Typically, the analyst concludes that the intellectual property has a finite UEL. In that case, the analyst may use the yield capitalization procedure over the intellectual property's expected UEL. Or, the analyst may use the direct capitalization procedure with a limited life direct capitalization rate.

Mathematically, the limited life capitalization rate is typically based on a present value of annuity factor for the intellectual property UEL.

In the yield capitalization procedure, the analyst projects the appropriate income measure for several future time periods. The discrete time period is typically based on the intellectual property UEL.

This income projection is converted into a present value by the use of a present value discount rate. The present value discount rate is the investor's required rate of return—or yield capitalization rate—over the expected term of the income projection.

The result of either the direct capitalization procedure or the yield capitalization procedure is the income approach value indication for the professional practice or professional services company or individual practitioner intellectual property.

Income Approach Illustrative Example

Exhibit 10 presents a simplified illustrative example of the application of the income approach to intellectual property valuation. In this example, the analyst is asked to estimate the fair market value of the hypothetical pharmaceutical product patent developed by the research firm Gamma Partners ("Gamma").

As described below, the Gamma patent is used to manufacture the Getwell pharmaceutical product.

The analyst is instructed that the appropriate valuation date for the intellectual property valuation is January 1, 2022.

The analyst decided to apply the income approach and the multiperiod excess earnings

Exhibit 10 (page 1 of 2)
Gamma Partners
Valuation of the Getwell Pharmaceutical Product Patent
Income Approach—Multiperiod Excess Earnings Method
As of January 1, 2022

Valuation of the Getwell Product Patent	Notes	Pro Forma Years 12/31/22 $000	12/31/23 $000	12/31/24 $000	12/31/25 $000	12/31/26 $000	12/31/27 $000	12/31/28 $000	12/31/29 $000	12/31/30 $000	12/31/31 $000
Getwell Product Revenue		4,643,232	4,450,217	4,184,750	3,880,112	3,548,858	3,548,858	3,548,858	3,548,858	3,548,858	3,548,858
Annual Growth Rate Percent		-1.2%	-4.2%	-6.0%	-7.3%	-8.5%	0.0%	0.0%	0.0%	0.0%	0.0%
Estimated Product Revenue Attrition Rate (23%)	[a]										
Revenue Attributable to the Getwell Product Patent		3,575,289	2,604,350	1,849,994	1,289,821	883,047	679,946	523,559	403,140	310,418	239,022
Annual Growth Rate Percent	[b]	NA	-27.2%	-29.0%	-30.3%	-31.5%	-23.0%	-23.0%	-23.0%	-23.0%	-23.0%
EBITDA		1,573,127	1,145,914	813,997	567,521	388,541	299,176	230,366	177,382	136,584	105,170
EBITDA Margin	[c]	44%	44%	44%	44%	44%	44%	44%	44%	44%	44%
Less: Depreciation/Amortization Expense		793,018	552,967	375,423	248,354	160,263	123,402	95,020	73,165	56,337	43,380
Percentage of Revenue	[d]	22.2%	21.2%	20.3%	19.3%	18.1%	18.1%	18.1%	18.1%	18.1%	18.1%
EBIT		780,109	592,947	438,575	319,167	228,278	175,774	135,346	104,216	80,247	61,790
EBIT Margin		21.8%	22.8%	23.7%	24.7%	25.9%	25.9%	25.9%	25.9%	25.9%	25.9%
Less: Income Taxes @ 37%		288,640	219,390	162,273	118,092	84,463	65,036	50,078	38,560	29,691	22,862
Net Income		491,469	373,557	276,302	201,075	143,815	110,738	85,268	65,656	50,556	38,928
Net Income Margin		13.7%	14.3%	14.9%	15.6%	16.3%	16.3%	16.3%	16.3%	16.3%	16.3%
Plus: Depreciation/Amortization Expense		793,018	552,967	375,423	248,354	160,263	123,402	95,020	73,165	56,337	43,380
Less: Contributory Asset Charges:											
Working Capital CAC	[e]	27,530	20,053	14,245	9,932	6,799	5,236	4,031	3,104	2,390	1,840
Tangible Assets CAC	[f]	(823,022)	(599,454)	(425,589)	(296,467)	(202,736)	(156,107)	(120,202)	(92,556)	(71,268)	(54,876)
Routine Intangible Assets CAC	[g]	(164,756)	(123,965)	(91,524)	(66,472)	(47,625)	(36,671)	(28,237)	(21,742)	(16,742)	(12,891)
Equals: Patent-Related Excess Earnings		324,239	223,159	148,856	96,422	60,516	46,598	35,880	27,627	21,273	16,381
Discounting Periods	[h]	0.5000	1.5000	2.5000	3.5000	4.5000	5.5000	6.5000	7.5000	8.5000	9.5000
Present Value Factor @ 11%		0.9492	0.8551	0.7704	0.6940	0.6252	0.5633	0.5075	0.4572	0.4119	0.3710
Present Value of Patent-Related Excess Earnings		307,767	190,823	114,679	66,917	37,834	26,249	18,209	12,631	8.762	6,077
Total Present Value of Patent-Related Excess Earnings (2022–2031)		789,949									
Indicated Fair Market Value of the Getwell Product Patent (rounded)		$790,000									

Exhibit 10 (page 2 of 2)
Gamma Partners
Valuation of the Getwell Pharmaceutical Product Patent
Income Approach—Multiperiod Excess Earnings Method
As of January 1, 2022

Footnotes to Exhibit 10:

[a] Considers the historical weighted decay rates for the Getwell patented product revenue.

Product Line	2019	2020	2021	Three-Year Average
Weighted Annual Revenue Decay Rate	23.4%	23.6%	23.3%	23.4%

[b] Represents 77 percent of the Getwell product revenue in 2022 based on the estimated attrition rate. Thereafter, the product revenue is projected to decrease annually based on (1) the estimated attrition rate and (2) the negative annual growth rate.

[c] The projected 2026 EBITDA margin is maintained after 2026.

[d] The projected 2026 depreciation expense as a percent of revenue is maintained after 2026.

[e] Based on (1) working capital requirement for the product line and (2) the estimated return on working capital (based on the Gamma weighted average cost of capital).

		2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
Working Capital - % of the Gamma Consolidated Revenue		-7%	-7%	-7%	-7%	-7%	-7%	-7%	-7%	-7%	-7%
Working Capital Requirement (times the Getwell product line revenue)		(250,270)	(182,305)	(129,500)	(90,287)	(61,813)	(47,596)	(36,649)	(28,220)	(21,729)	(16,732)
Return on Working Capital	11%	(27,530)	(20,053)	(14,245)	(9,932)	(6,799)	(5,236)	(4,031)	(3,104)	(2,390)	(1,840)

[f] Equals the sum of projected capital expenditure allocated to the product line based on (1) percent of revenue and (2) the estimated return on tangible assets requirement (based on the Gamma weighted average cost of capital).

		2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
Net Tangible Assets as % of the Gamma Consolidated Revenue (see Exhibit 11)		113%	113%	113%	113%	113%	113%	113%	113%	113%	113%
Tangible Assets Requirement (times the Getwell product line revenue)		4,038,767	2,941,962	2,089,816	1,457,025	997,520	768,090	591,430	455,401	350,659	270,0070
Return on Tangible Assets	11%	444,264	323,616	229,880	160,273	109,727	84,490	65,057	50,094	38,572	29,701

[g] The routine intangible assets contributory asset charge—as a percent of consolidated revenue—is multiplied by the revenue attributable to the Getwell patented product.

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

Note: All data are hypothetical and are presented for illustrative purposes only.

method. Because the patent product revenue is expected to change at a nonconstant rate over time, the analyst decided to apply the yield capitalization procedure.

Applying this procedure, this valuation method is often called the multiperiod excess earnings method (or "MEEM").

The Gamma patent is used to manufacture the Getwell pharmaceutical product. Based on the remaining legal life of the patent and the product revenue decay rate (considering the effect of a competitive drug product), the analyst estimates a 10-year UEL for the patent.

Gamma management provided the analyst with a financial projection for the overall Gamma Partners and for the Getwell product. The analyst performed a revenue decay rate analysis related to the Getwell product in order to conclude a patent revenue growth rate (or, in this case, decay rate).

Exhibit 10 presents the projection of the product revenue and the product profit over its expected 10-year UEL. The analyst estimated an appropriate contributory asset charge on all of the Gamma contributory assets, including working capital assets, tangible assets, and routine (nonpatent) intangible assets.

This contributory asset charge (or "CAC") analysis is summarized in Exhibit 11.

In order to limit the number of exhibits, let's assume that Gamma has the same 11 percent cost of capital as presented in the previous Beta (market approach) example (see Exhibit 9). Accordingly, the analyst used 11 percent as the Gamma weighted average cost of capital—or present value discount rate.

Based on the income approach and MEEM valuation analysis summarized in Exhibit 10, the analyst estimated that the fair market value of the hypothetical Gamma patent on the Getwell pharmaceutical product was $790 million, as of January 1, 2022.

Valuation Synthesis and Conclusion Procedures

In the intellectual property valuation synthesis and conclusion process, the analyst typically considers the following question: Does the selected valuation approach(es) and valuation method(s) accomplish the analyst's professional-practice-related assignment?

The analyst should also consider if the selected valuation approach and valuation method analyzes the appropriate intellectual property bundle of legal rights.

The analyst should consider if there were sufficient empirical data available to perform the selected valuation approach and valuation method. That is, the valuation synthesis should consider if there were sufficient data available to make the analyst comfortable with the analysis conclusion.

And, the analyst should consider if the selected valuation approach and valuation method will be understandable to the intended audience for the professional practice intellectual property valuation.

Analyst Caveats for Developing Intellectual Property Valuations

The analyst may consider the following practical caveats with regard to the development of the professional practice intellectual property valuations:

1. The analyst may accept legal counsel's advice and instructions. The analyst should also:
   - document all of the legal counsel's instructions,
   - document all of the legal counsel's definitions of technical legal terms,
   - not practice law without a license, and
   - let the legal counsel take responsibility for all legal issues related to all legal matters.
2. Legal counsel is not always totally forthcoming with the analyst. The analyst should also:
   - be aware of any "creeping commitments" (or unintended expansions) regarding the scope of work in the analyst's engagement and
   - be aware of any legal counsel-imposed limitations on the analyst regarding access to all of the documents in the case.
3. The analyst should document, document, document—both in the valuation workpapers and in the valuation report. In particular, the analyst may:
   - document all professional practice management and other party interviews;
   - document all functional analysis and due diligence procedures performed;
   - document why the analyst selected or rejected each valuation method that was considered in the analysis;

Exhibit 11
Gamma Partners
Valuation of the Getwell Pharmaceutical Patent
Income Approach—Multiperiod Excess Earnings Method
Contributory Asset Charge Analysis
As of January 1, 2022

Tangible Assets Contributory Asset Charge:	FYE 12/31/21 $000
Beginning Tangible Assets [a]	12,034,000
Capital Expenditures [a]	1,162,971
Depreciation Expense [a]	(2,249,209)
Net Tangible Assets	10,947,762
Gamma Consolidated Revenue [a]	9,691,426
Net Tangible Assets as % of Gamma Consolidated Revenue	113%

Routine Intangible Assets Contributory Asset Charge:	Fair Market Value $000 [a]	Estimated Required Rate of Return [b]	Annual Return $000
Trademarks/Trade Names	970,000	11%	106,700
Internally Developed Computer Software	2,510,000	11%	276,100
Trained and Assembled Workforce	580,000	11%	63,800
Total Contributory Intangible Assets			446,600

	12/31/22 $000	12/31/23 $000	12/31/24 $000	12/31/25 $000	12/31/26 $000
Gamma Consolidated Revenue [a]	9,691,426	9,382,534	9,027,219	8,665,762	8,280,712
Intangible Assets Contributory Asset Charge (from the above analysis)	446,600	446,600	446,600	446,600	446,600
Intangible Asset Contributory Asset Charge as % of Gamma Consolidated Revenue	4.6%	4.8%	4.9%	5.2%	5.4%

[a] From the Gamma business plan.
[b] Based on the Gamma weighted average cost of capital.
Note: All data are hypothetical and are presented for illustrative purposes only.

- document why the analyst selected or rejected each valuation variable that was considered in the analysis;
- document why the analyst selected or rejected each set of financial projections that was relied on (or not relied on) in the analysis; and
- use contemporaneously prepared financial projections relied on by others (including management), if possible, and not use financial projections prepared after the announcement of litigation (if possible).

4. The analyst should use generally accepted valuation approaches, methods, and procedures in the intellectual property valuation.

   In particular, the analyst typically should not:

   - apply de novo valuation methods (or apply de novo valuation method naming conventions) and

- rely on "rules of thumb" pricing methods to achieve specific value indications to include in the final value conclusion.

5. The analyst should use confirmatory valuation approaches and methods in the intellectual property analysis.

   In particular, the analyst may:

   - explain the valuation synthesis and conclusion process and
   - explain the quantitative (or qualitative) value conclusion process so that it is replicable, transparent, and auditable.

6.. The analyst should use confirmatory source documents, if possible; in particular, the analyst may:

   - look for confirmatory source documents;
   - look for contradictory source documents;
   - explain the process and reasoning for selecting the specific source documents relied on;
   - look at and consider all source documents that are made available to the analyst in discovery or otherwise; and
   - avoid wearing "hindsight blinders"—that is, the process of excluding post-valuation date documents that contain prevaluation date information.

7. The analyst should consider all professional practice intangible assets in the valuation analysis. In addition, the analyst should consider all professional practice contingent liabilities in the valuation analysis.

8. The analyst should consider the expected income tax effects in all of the intellectual property valuation analyses.

   In that consideration, the analyst may:

   - consult with an independent income tax expert, if one is needed, and
   - consult with an income tax expert colleague, if one is available.

9. In professional-practice-related litigation, the analyst should be mindful that "your expert report is your best friend."

   The analyst should also be mindful that:

   - the analyst's report should be clear, convincing, and cogent;
   - the analyst's report should be replicable and transparent;
   - the analyst's report should be adequately supported with source documents; and
   - the analyst should also be mindful of the expert report caution that "If it's not documented in the expert report, you didn't do it."

10. The analyst should know his or her own technical limitations in performing the intellectual property valuation. That is, the analyst should rely on third-party specialists for input into the intellectual property valuation, when needed.

    Such third-party specialists may include:

    - industry experts,
    - tax accounting experts,
    - financing accounting experts,
    - real estate appraisal experts,
    - personal property appraisal experts, and
    - other experts.

Intellectual Property Valuation Report Writing Guidelines

There are numerous objectives of a professional-practice-related intellectual property valuation report. Of course, the analyst wants to persuade the report reader (whether the reader is a judge or other finder of fact). The analyst also wants to defend the intellectual property value conclusion.

In order to accomplish these objectives, the content and format of the valuation report should demonstrate that the analyst:

1. understood the specific intellectual property valuation assignment;
2. understood the owner/operator's intellectual property and the owner/operator's bundle of legal rights;
3. collected sufficient intellectual property financial and operational data;
4. collected sufficient industry, market, and competitive data;
5. documented the specific owner/operator's intellectual property economic benefits;
6. performed adequate due diligence procedures related to all available data;
7. selected and applied all applicable income-, market-, and cost-approach valuation methods; and
8. reconciled all value indications into a final intellectual property analysis conclusion.

The final procedure in the intellectual property analysis is for the analyst to defend the value conclusion in a replicable and well-documented valuation report. The written intellectual property valuation report should:

1. explain the intellectual property valuation assignment;
2. describe the professional practice or company or practitioner intellectual property and the subject bundle of legal rights;
3. explain the selection or rejection of all generally accepted intellectual property valuation approaches and methods;
4. explain the selection and application of all specific analysis procedures;
5. describe the analyst's data gathering, functional analysis, and due diligence procedures;
6. list all documents and data considered by the analyst;
7. include copies of all documents that were specifically relied on by the analyst;
8. summarize all of the qualitative analyses performed;
9. include schedules and exhibits documenting all of the quantitative analyses performed;
10. avoid any unexplained or unsourced valuation variables or analysis assumptions; and
11. allow the report reader to be able to replicate all of the analyses performed.

In order to encourage the reader's acceptance of the intellectual property valuation report conclusion, the report should be:

1. clear, convincing, and cogent;
2. well organized, well written, and well presented; and
3. free of grammar, punctuation, spelling, and mathematical errors.

In summary, the effective (i.e., persuasive) intellectual property valuation report will tell a narrative story that:

1. defines the analyst's assignment;
2. describes the analyst's data gathering, functional analysis, and due diligence procedures;
3. justifies the analyst's selection of the generally accepted intellectual property valuation approaches, methods, and procedures;
4. explains how the analyst performed the valuation synthesis and reached the final value conclusion; and
5. defends the analyst's intellectual property value conclusion.

Summary and Conclusion

A valuation analyst may be called on to value the professional practice or professional services company or individual practitioner intellectual property for a variety of accounting, taxation, and other reasons.

A damages analyst may be called on to measure the damages suffered by a professional practices or professional services company or individual practitioner intellectual property.

And, a transfer price analyst may be called on to determine the arm's-length transfer price related to the professional practice or professional services company or individual practitioner intellectual property.

This discussion summarized many of the general reasons (and some of the family-law-related reasons) for valuing the professional practice intellectual property.

This discussion also summarized and illustrated the generally accepted professional practice intellectual property valuation approaches, methods, and procedures.

In addition, this discussion summarized many analyst caveats related to developing the intellectual property valuation analysis—including a description of:

1. many of the frequently referenced data sources and
2. many of the typical functional analysis and due diligence procedures.

The final procedure in the professional practice intellectual property valuation is the preparation of a clear, convincing, and cogent valuation report.

This discussion summarized many of the attributes related to an effective (i.e., persuasive) intellectual property valuation report. These attributes also relate to the presentation of effective valuation expert testimony with regard to disputes involving professional practice, professional services company, or individual practitioner intellectual property.

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