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Thought Leadership in Intangible Asset Valuation, Damages, and Transfer Price Analyses

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Thought Leadership

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Thought Leadership in Intangible Asset Valuation, Damages, and Transfer Price Analyses

Editor for This Issue: Scott R. Miller

Economic Damages Analysis Thought Leadership

Dissenting Shareholder Appraisal Rights Litigation Thought Leadership

Intangible Asset Valuation and Transfer Pricing Thought Leadership

Business and Intangible Asset Valuation Thought Leadership

Willamette Management Associates Insights

2017 Recipient of the Apex Literary Award

Forethoughts

This *Insights* issue focuses on intangible asset valuation, economic damages, and transfer pricing analyses. This issue addresses recent judicial decisions, processes and procedures, and analytical issues that practitioners may encounter.

First, this *Insights* issue provides an in-depth look at the methods and procedures involved in economic damages measurement. This issue provides insight into recent legal decisions involving damages analyses. Further, this issue offers a timely discussion regarding the changing landscape of dissenting shareholder appraisal rights litigation.

Next, this *Insights* issue provides guidance regarding intangible asset valuation best practices. These discussions focus on the valuation of intellectual property, and specifically trademarks and trade names. The discussions in this issue also provide professional guidance regarding best practices in transfer pricing analyses, including guidance related to the methods and procedures that have prevailed in high stakes legal decisions.

Finally, this *Insights* issue describes valuation approaches and methods that are often overlooked by valuation practitioners. This issue provides an in-depth discussion on the valuation of internally developed computer software, a topic that is particularly relevant in the field of property taxation. Nonetheless, the number of valuation analysts with expertise in the area remains limited. The final discussion in this issue provides guidance on the application of the asset-based business valuation approach, including considerations for analysts less familiar with the application of asset-based approach methods.

Willamette Management Associates analysts have extensive experience providing a wide variety of valuation, economic damages, and transfer price services including (1) forensic analysis and dispute resolution, (2) economic damages/lost profits/lost business value analysis, (3) intangible asset valuation, (4) transfer pricing analysis, and (5) ad valorem property tax valuation. These services include expert testimony and related litigation support services.

About the Editor

Scott R. Miller

Scott Miller is a vice president located in our Portland, Oregon, practice office. Scott has provided valuation and economic advisory services to clients locally, nationally, and internationally, for over 10 years.

Scott's practice focuses on valuation and economic advisory services for forensic analysis and dispute resolution (including breach of contract, shareholder oppression, and dissenting shareholder appraisal rights matters), gift and estate taxation planning and compliance, ESOP compliance and transaction pricing, transaction opinions, and corporate strategic information and planning. Scott also performs valuation analyses for purposes of property tax compliance, transfer pricing, and regulatory compliance.

Scott conducts lost profits/lost business value/economic damages analyses, business and stock valuations, gift and estate tax valuations, fairness opinions, forensic analyses, merger and acquisition valuations, divestiture and spin-off valuations, transfer pricing analyses, ad valorem property tax valuations, intangible asset and intellectual property valuations, marital dissolution valuations, reasonableness of compensation analyses, and appraisal reviews.

Some of Scott's recent work involved providing valuation and economic advisory services to clients locally, nationally, and internationally. Locally, he recently completed valuations involving two of Oregon's largest timber and wood product manufacturing companies, for both gift and estate taxation purposes and corporate strategic planning purposes. Nationally, he recently completed a valuation involving a Texas-based grocery chain for ESOP compliance purposes and a valuation involving a key manufacturer of the nation's electrical power grid components for ESOP transaction-related purposes. Internationally, he recently provided economic damages analyses for one of the world's largest publicly traded mining companies.

Scott has authored numerous thought leadership journal articles for professional publications such as *Valuation Strategies*, *American Journal of Family Law*, and *Insights*.

Scott received a bachelor of science degree in business administration, with a finance concentration and an economics minor, from the honors program of the University of Oregon Lundquist College of Business.

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Thought Leadership Discussion

A Primer on the Fundamental Elements of Economic Damages Analysis

Fady F. Bebawy

This discussion summarizes some of the fundamental elements that go into an economic damages measurement analysis. This discussion considers that the laws related to breach of contract claims and tort claims are complex. This discussion recognizes that many of the participants to a judicial action are not attorneys. Economic damages analysts ("analysts") are among these participants. Understanding some of the elements to a judicial action provides background information and context to the legal aspects that touch on many economic damages analyses. This in turn aids analysts in performing damages analyses and selecting the most appropriate damages measurement methods. Because measuring economic damages is sometimes related to quantifying business value, business valuation analysts are often qualified to perform economic damages analyses.

Introduction

Economic damages awards in judicial actions are meant to achieve two goals.

The first goal is to compensate the damaged party by putting that party in the same economic position it would have been in but for the wrongful act.

The second goal is to deter future wrongful acts from being performed by the defendant. This goal is accomplished by putting the defendant in the same economic position it would have been in (i.e., by disgorging its ill-gotten gain) but for the wrongful act. Of course, the law also provides for other remedies to encourage deterrence, such as punitive damages awards.

This discussion presents an overview of the elements of a judicial action that are relevant to the analysis and measurement of economic damages. The judicial action is based on a wrongful act committed by a "bad actor" that results in damages to another party. The damaged party seeks relief through the courts from this wrongful act by filing a lawsuit.

The wide and expansive nature of the law is complex, and the terminology used by participants in a lawsuit is often used loosely. This fact can leave participants to a lawsuit (other than the attorneys) unclear about the legal process and uninformed about many elements to a lawsuit. This lack of clarity even extends to the professional practitioners who may be involved in providing testifying expert services.

Conceptually understanding the elements to a judicial action can assist the forensic analyst ("analyst") in identifying the measurement methods to apply in the economic damages analysis.

The scope of the economic damages measurement analysis should not extend beyond the expertise of the analyst. While an understanding of the elements of a court action is important, the analyst's work should be performed under the direction of the client's legal counsel.

The following discussions relate to various legal areas surrounding a judicial action. Of course, these discussions do not represent legal opinions or legal guidance.

The Elements of a Judicial Action That Are Relevant to Economic Damages

The elements of a judicial action that are relevant to the analysis and measurement of economic damages include (1) legal standards, (2) types of courts, (3) types of claims, and (4) types of remedies. Each of these elements is addressed in the following sections.

Legal Standards Related to a Judicial Action

An economic damages measurement analysis is informed by a number of important legal standards that should be met to support the economic damages claim. These legal standards are important as they affect determinations in a claim with respect to culpability and veracity.

The legal standards are usually addressed in a later stage of the lawsuit. However, if the facts and circumstances of the lawsuit do not satisfy these legal standards, while the lawsuit may be valid in terms of the defendant's performance of a wrongful act, the plaintiff may not be eligible to receive any pecuniary relief.

Prior to filing the judicial action, the plaintiff's counsel will evaluate the lawsuit based on the merits of addressing these legal standards (as well as other considerations). The legal standards discussed below are (1) causation, (2) reasonable certainty, (3) economic loss doctrine, (4) proximate cause, (5) foreseeability, and (6) duty to mitigate.

Legal Standard of Causation

The legal standard of causation relates to the connection between the defendant's wrongful acts and the damages suffered by the plaintiff. It is noteworthy that causation is not established by mere correlation, even if the correlation is logical, strong, and direct. Causation is more than correlation.

Causation is established only when the wrongful acts of the defendant are the primary reason for the plaintiff's damages and there are no other factors that could have caused or contributed to the plaintiff's damages. This latter consideration may be subtle, but it is important. Some courts have challenged the analyst's credibility and even admissibility of the expert's testimony because the analyst did not convincingly establish the link between (1) the defendant's wrongful act and (2) the plaintiff's economic damages.

It is in the best interest of the plaintiff's legal counsel team (including all retained experts) (1) to address other factors that could have caused the plaintiff's damages and (2) to proffer some explanation as to why these factors are not relevant in the subject case.

Because the legal standard of causation may differ by jurisdiction, and given the nature of the legal claim (wrongful act), causation may be established by specifically addressing the following criteria.

First, causation may be established by simply linking the defendant's wrongful act directly to the plaintiff's damages in a way that demonstrates a relationship of cause and effect—rather than just correlation.

Second, it is important for the analysis (1) to provide a discussion of the rationale that clearly links the defendant's wrongful act to the plaintiff's damages and (2) to establish a reasonable expectation that the plaintiff's damages are the result of the defendant's wrongful act.

Third, establishing causation involves (1) addressing any and all other factors that could also have harmed the defendant and (2) discussing why these factors are not relevant.

Finally, it is important to understand that a plaintiff's economic damages may not be caused entirely by the defendant's wrongful act. For example, consider a shareholder action against a corporation where wrongful conduct resulted in a reduction of stock price. If the wrongful conduct occurred in times where the whole market experienced declining returns, then part of the plaintiff's economic decline may be related to the overall market decline.

The overall market decline would not be included as economic damages, and the additional portion of the plaintiff's economic decline would be related to the defendant's wrongful act. That is, the non-market-based decline would be related to, or caused by, the defendant's wrongful act. In this scenario, any market economic decline should be (1) addressed and separated from the plaintiff's total economic decline and (2) excluded from the concluded economic damages.

In commercial litigation, while causation should be demonstrated in a lawsuit, causation does not necessarily need to be established by the plaintiff's damages analyst. Depending on the nature of the business and the nature of the legal claims, causation may be established by other constituents to the lawsuit, such as an industry expert, a fact witness, the defendant's legal counsel, and so forth.

Legal Standard of Reasonable Certainty

The legal standard of reasonable certainty is guided by Section 352 of the *Restatement (Second) of Contracts* (1981) that reads, "Damages are not

recoverable for loss beyond an amount that the evidence permits to be established with reasonable certainty."[1] In other words, the damages should be provable, and not speculative.

There remains no consensus on the measure of reasonable certainty as individual state courts and federal courts have advanced their own opinions as to the nature of reasonable certainty. The courts should strike the right balance in evaluating whether reasonable certainty is established or not. If the bar is set too high, this would encourage potential unscrupulous actions of the defendant. If the bar is set too low, this would encourage the plaintiffs to undertake judicial actions, because the burden of proof is easier to establish.

Legal Standard of Economic Loss Doctrine

The recoverability of damages—and the nature of damages—differ between a tort case and a breach of contract case. The legal standard of economic loss doctrine sets out the extent of loss a plaintiff can recover in a tort case.

Under a contract, the parties to the contract determine the respective rights and duties. If one party believes the other has breached a duty under the contract, a suit can be raised against the breaching party. In addition to the contract, the Uniform Commercial Code also provides guidelines for the rights and responsibilities of the parties to a contract.[2]

On the contrary, a tort involves a breach of a civil duty (not a contractual duty). Torts are sometimes thought of as personal injury cases, but the wrongful act extends beyond this. Torts include such wrongful acts as assault, battery, false imprisonment, defamation of character, interference with business, unfair competition, tortious interference with contract, trespass, negligence, and infringement of protected intellectual property rights.

Under tort law, an injured party can bring a civil lawsuit to seek compensation for a wrong done to the party or to the party's property.[3] In other words, the plaintiff can only recover the losses related to personal injury or property loss based on the economic loss doctrine in a tort case. Thus, recovery of actual monetary losses is precluded under tort law based on the economic loss doctrine.

Under a breach of contract claim, the economic loss extends to monetary losses. This definition of the economic loss doctrine is by no means invariable. While this narrow definition of the economic loss doctrine—that plaintiff's recovery is limited to losses related to personal injury loss or property loss—is the majority view held by most states and federal jurisdictions, a minority of states and federal jurisdictions extend the damages available to plaintiffs to include monetary losses.

In cases under tort law, the damages expert may seek specific guidance from counsel regarding the scope of eligible damages prescribed under the economic loss doctrine.

Legal Standard of Proximate Cause

The legal standard of proximate cause limits the plaintiff's economic damages to the point at which the defendant's actions cease to "proximately cause" harm to the plaintiff. In other words, damages suffered by the plaintiff do not continue indefinitely.

The determination of proximate cause can be understood in the context of the two components of causation: (1) actual (but-for) cause and (2) legal (proximate) cause.

Actual cause has been defined by some courts in terms of a but-for test, "The defendant's conduct is a cause of the event if the event would not have occurred but for that conduct; conversely, the defendant's conduct is not a cause of the event if the event would have occurred without it."[4]

Said another way:

- There is causation if the following statement is true: if there was no defendant, there would be no damages to the plaintiff.
- There is no causation if the following statement is true: if there was no defendant, there still would be damages to the plaintiff.

While actual cause can cast the universe of factors that caused the plaintiff's damage wholly on the defendant, legal cause acts in a manner that "tempers the expansive view of causation."[5] In other words, legal cause puts a limit on the defendant's liability to a demarcation point beyond which "the law arbitrarily declines to trace a series of events."[6]

Another court explained legal cause as follows:

> The law does not undertake to charge a person with all the possible consequences of a wrongful act, but only with its probable and natural result; otherwise, the punishment would often be entirely disproportioned to the wrong, thereby impeding commerce and the ordinary business of life, and rendering the rule [of causation] impracticable.[7]

Legal Standard of Foreseeability

In general, the legal standard of foreseeability limits the plaintiff's ability to recover damages from the defendant to the extent that the results or

consequences of the defendant's wrongful acts are reasonably foreseeable.

The legal standard of foreseeability is related to the legal standard of proximate cause. Foreseeability is one of the fundamental tests that can be applied to aid in determining proximate cause. In other words, proximate cause can be tested by reasonable foreseeability.

Legal Standard of Duty to Mitigate

The legal standard of the duty to mitigate is another condition placed on the plaintiff in order to be awarded damages. This condition means that the plaintiff is required to take reasonable steps to reduce or altogether eliminate the loss that was caused by the defendant's wrongful act. Failure to take reasonable steps to minimize damages may result in the damages award being reduced.

Types of Courts

The U.S. court system, historically originating from the English court system, is made up of civil courts and criminal courts. Civil courts render compensatory and equitable remedies. Criminal courts primarily render the remedy of incarceration. Disputes, where analysts are brought in to perform a damages analysis, are tried as civil disputes in the U.S. civil court system.

Within the U.S. civil court system, two discrete types of civil courts have historically existed: (1) courts of law and (2) courts of equity. Courts of law, awarding remedies (relief) based on pecuniary damages, adjudicate disputes in accordance with federal and state law. Courts of equity adjudicate disputes in accordance with a set of principles based on fairness, equality, moral rights, and natural law, rather than a strict interpretation of the law. Courts of equity award remedies in the form of an action, rather than a monetary payment.[8]

Most states have merged their courts of law and courts of equity. Consequently, courts now administer both pecuniary remedies and equitable remedies. Depending on the nature of the dispute, courts may also administer a combination of pecuniary remedies and equitable remedies.

However, there still remain some state courts that have not merged their courts and have retained their courts as either courts of law or courts of equity. Perhaps the most notable state court that has retained its court of equity is the Delaware Court of Chancery. Its website states, "Delaware's Court of Chancery is the nation's preeminent business court. As a court of equity, the Court of Chancery has jurisdiction to hear and determine cases involving equitable rights (such as trusts and fiduciary duties) and equitable remedies (such as injunctions and specific performance)."[9]

Types of Claims

There are three types of claims that can arise in a judicial action:

1. A contract claim
2. A tort claim
3. A statutory claim

A Contract Claim

A contract claim arises when the dispute relates to a contract entered into by two or more parties. These parties to a contract—parties in privity or parties with privity—and third parties identified in the contract are the only parties who can raise contract claims. Thus, parties not in privity cannot seek remedies in a contract claim. However, the parties may seek remedies in a tort case or a statutory case depending on the nature of the circumstances.

Elements that should exist in a judicial action of a contract claim, in addition to the applicable legal standards discussed previously, include the following:

- The existence of a bona fide contract
- The party claiming the breach must perform the contract or demonstrate intent to perform the contract
- A material breach of the contract by the defendant to the contract claim
- Damages that are caused by the breach

In a contract claim, the purpose of the damages award is to place the injured party in substantially the same position as the party would have been in had the contract been performed and not breached.

A list of types of typical contract claims include, but are not limited to, the following:

- Breach of contract
- Fraud in the inducement
- Misrepresentation
- Breach of express or implied warranty
- Breach of covenant of good faith and fair dealing

A Tort Claim

A tort claim is a civil wrongful act that arises when a dispute is not related to a contract. The party committing the tort is the tortfeasor. While a contract

claim relates to a breach of contract, a tort claim typically relates to a breach of a fiduciary duty. Generally, in a tort claim, the purpose of the damages award is to place the injured party in substantially the same position as that which was occupied prior to the tortious activity. This purpose of the damages award in a tort claim is essentially the same purpose as that in a contract claim.

The three common elements that should be present in every tort claim are as follows:

- The existence of a legal duty to the plaintiff
- The breach of that legal duty by the defendant
- The plaintiff experienced harm or damages as a result of the breach of duty

A list of types of typical tort claims include, but are not limited to, the following:

- Defamation
- Tortious interference with contract
- Theft of trade secrets
- Breach of fiduciary duty
- Negligence
- Conversion
- Infringement
- Expropriation
- Condemnation
- Misappropriation
- Wrongful termination

A Statutory Claim

A statutory claim arises when the wrongful act is performed in violation of a federal or state statute. Therefore, the guidelines vary by state or local jurisdiction.

Cases that commonly result in statutory damages include the following:

- Breaches of intellectual property or copyright law
- Public policy violations
- Tax evasion

Common judicial actions that arise based on statutory claims relate to the following:

- Copyrights – governed by 17 U.S.C. section 504. According to section 504(b), "The copyright owner is entitled to recover the actual damages suffered by him or her as a result of the infringement, and any profits of the infringer that are attributable to the infringement and are not taken into account in computing the actual damages."
- Trademarks – covered under the Lanham Act, trademarks are generally governed by 15 U.S.C. section 1117. Trademarks are also governed by state trademark registration acts. Similar to copyrights, infringement damages is measured as the sum of the actual damages of the trademark holder and the infringer's profits.
- Patents – governed by 35 U.S.C. section 284. This statute awards the patent holder adequate compensation for the patent infringement. Damages can range from a reasonable royalty payment on the infringed patent to the lost profits the patent holder would have earned but-for the patent infringement by the defendant.
- Trade secrets – solely governed by state statutes. In court actions related to trade secrets, counsel should advise the analyst of the relevant trade secret statutes and any relevant judicial precedent. In most states, some version of the Uniform Trade Secrets Act has been adopted.

Types of Remedies

There are three types of remedies that can be awarded in a judicial action. These remedies generally relate to the types of courts in which the judicial actions are filed. These three types of remedies are (1) compensatory remedies, (2) punitive remedies, and (3) equitable remedies.

Historically, compensatory remedies and punitive remedies have been awarded in courts of law, while equitable remedies, as its name suggests, have been awarded in courts of equity. Since these two courts have been merged in most states, all three types of remedies may be awarded in civil court actions. Also, all three types of remedies may be awarded in both contract cases and tort cases.

Compensatory Remedies

Compensatory remedies are pecuniary and involve measurements of economic damages. There are a number of types of compensatory remedies. The main types of compensatory remedies are (1) expectation remedies, (2) reliance remedies, (3) restitution or disgorgement remedies, (4) anticipatory breach remedies, (5) ex ante remedies and ex post remedies, (6) consequential remedies, and (7) statutory remedies.

Expectation Remedies

Expectation remedies are measured from the plaintiff's perspective and are related to the plaintiff's loss. Expectation remedies typically apply in contract claims in which the harming party breaches a contract with the harmed party. Expectation remedies seek to make the plaintiff whole as if the defendant had fulfilled the promise or bargain of the contract in full.[10]

Courts sometimes refer to expectation remedies as the "benefit of the bargain" because it seeks to compensate the plaintiff for the benefit of the bargain that was lost as a result of the wrongful act.

Reliance Remedies

Reliance remedies are also measured from the plaintiff's perspective and are also related to the plaintiff's loss. Reliance remedies typically apply in tort claims and in some contract claims as well. Reliance remedies unwind a transaction and restore the harmed party to the same position had the transaction not existed in the first place. In the case of torts, compensation for nonpecuniary losses such as pain and suffering would also be included. Reliance remedies often may include out of pocket costs, and, when appropriate, may even include compensation for lost opportunities.

Reliance remedies that strictly involve the unwinding of a transaction as if it did not exist may result in an economic damages estimate that is less than that of expectation remedies. However, in cases where lost opportunities are included in the damages measurement, reliance remedies may approach expectation remedies.

Restitution or Disgorgement Remedies

Restitution or disgorgement remedies are measured from the defendant's perspective, instead of from the plaintiff's perspective. These remedies are related to the defendant's gain, instead of the plaintiff's loss. Also known as unjust enrichment or ill-gotten gains remedies, collectively, these remedies are referred to here as "restitution" remedies.

Restitution remedies act in the same way as reliance remedies, except from the perspective of the defendant. Restitution remedies unwind a transaction and restore the breaching party to the same position had the transaction not existed in the first place.

The compensatory remedy of restitution is analogous to the equitable remedies of specific performance and injunctive relief (discussed in subsequent sections).[11]

Courts can award multiple remedies—such as restitution, expectation, and others—so long as the restitution does not overlap any of the other remedy measures. Accordingly, counsel may seek a combination of expectations remedies and restitution remedies and direct the analyst to quantify both of these damages.

Anticipatory Breach Remedies

As the name implies, an anticipatory breach occurs when either party to a contract notifies the other that it will not perform its duties under the contract. An anticipatory breach also occurs when the nonbreaching party assumes there will be a breach because of the actions of the breaching party. In this case, the nonbreaching party may sue when the anticipatory breach occurs and does not need to wait until the actual breach.[12]

Ex Ante Remedies and Ex Post Remedies

Ex ante remedies and ex post remedies primarily have to do with considerations of available information and the measurement date. In an ex ante analysis, the measurement date is the date of the wrongful act and the available information is the information that is known or knowable at the date of the wrongful act. Information about subsequent events are not considered in an ex ante analysis.

In an ex post analysis, the measurement date is the date of the analysis (a current date) and the available information is all the information that is known or knowable as of the current date. Thus, events subsequent to the date of the wrongful act are considered in an ex post analysis.

The simplest example to illustrate the implications of an ex ante analysis versus an ex post analysis is the lottery ticket example. The harmed party purchases a lottery ticket for one dollar, which is stolen by the harming party. One week later, this ticket is the winning lottery ticket and the harming party receives $100 million.

Based on an ex ante analysis, the harmed party is awarded one dollar to be made whole, given what was known or knowable at the date at which the ticket was stolen. Based on an ex post analysis, the harmed party is awarded $100 million to be made whole, given at the time of the lawsuit, it was known that the stolen ticket was worth $100 million.

Note that either of these analyses is not a complete damages analysis method on its own. Instead, each method includes certain considerations, namely information and damages date, that are included in a damages analysis method. For example, in a lost profits method, the selected damages date and the information known on the damages date determines

whether the lost profits damages measurement is ex ante or ex post.

Generally, the analyst will perform either an ex ante analysis or an ex post analysis based on (1) the information available, (2) what makes economic sense given the facts and circumstances of the case, (3) what makes economic sense based on analysis of the data, (4) instruction from counsel, and (5) what the courts have accepted in the particular jurisdiction in which the case is being litigated.

Consequential Remedies

Consequential remedies, as the name implies, are additional damages that arise as a consequence of the damages directly related to the wrongful act. Consequential damages arising from a breach of contract claim can be reasonably foreseen at the time the parties entered into the contract.[13]

A classic example of a breach of contract consequential damages is a construction contract where the builder completes the construction of a hotel. However, the building has plumbing issues such that (1) the owner incurs costs to fix the plumbing issues (direct damages) and (2) the owner losses profits because the plumbing issues delayed the opening of the hotel (consequential damages).

Statutory Remedies

Statutory claims are discussed above in the section related to types of claims. Statutory remedies refer to standard payments that compensate for injuries, losses, or civil violations. Statutory remedies accelerate judicial actions because there is no requirement for a measurement of actual economic damages and the support for the calculations.

The following are examples of common statutes and their statutory damages:[14]

- Copyrights – statutory damages for copyright violations range from $750 to $30,000
- Trademarks – statutory damages for trademark violations, including unfair competition, infringement, and willful dilution, range from $1,000 to $250,000

Damages analysts may or may not be involved in the calculation of statutory damages.

Punitive Remedies

As mentioned above, one of the main goals of an economic damages award is to deter future wrongful acts from being performed by the harming party. A damages analysis will seek to quantify the ill-gotten gains achieved by the harming party and counsel will pursue the compensatory remedy of restitution to disgorge the harming party of its ill-gotten gains.

The restitution remedy, then, will result in placing the harming party in the same economic position it would have been in but for the wrongful act it performed. This remedy may or may not successfully deter the wrongful acts of harming parties.

Punitive remedies are special damages awarded in addition to actual damages. As such, punitive remedies are specifically designed to punish wrongful acts as a further deterrent. Punitive remedies are not tied directly to the plaintiff's losses or the defendant's gains.

Courts often award punitive remedies when the harming party exhibits deceitful, malicious, reprehensible, or reckless conduct. Courts do not award punitive damages in breach of contract court actions.[15]

This is because the policy of contract law is not to compel adherence to contracts, but only to require each party either to perform under the contract or compensate the other party for any resulting injuries.[16]

Courts may also award punitive remedies in addition to compensatory remedies in connection with a tort claim.[17]

Equitable Remedies

Historically, equitable remedies were the remedies that were awarded in courts of equity and could not be awarded in a court of law where damages awards were pecuniary. Even though courts of law and courts of equity are merged in most U.S. states, these merged courts continue to render equitable remedies.

Equitable remedies include the following:[18]

- Rescission – undoing or reversing actions taken under a contract
- Reformation or rectification – restructuring the terms of a contract to prevent an inequitable outcome
- Specific performance – compelling performance of the contract according to its terms
- Injunction – compelling a party from refraining from certain acts
- Subrogation – providing that one party can assume the rights of another
- Account of profits – assessing profits improperly gained by a fiduciary that breached its duty (disgorgement or unjust enrichment)

- Declaratory relief – seeking a preemptive court ruling as a common mechanism of relief in divorce and certain contract matters

Although rescission is a nonpecuniary, equitable remedy, depending on the facts and circumstances of the case, a pecuniary restitution remedy may be applicable—in addition to the equitable remedy of rescission.[19]

A landmark Delaware Supreme Court decision concluded that in the context of a self-dealing transaction involving the duty of loyalty, the rescissory damages standard is based on requiring a disloyal fiduciary to disgorge any unjust enrichment derived from his wrongdoing. The court stated:

> [T]he absence of specific damage to a beneficiary is not the sole test for determining disloyalty by one occupying a fiduciary position. It is an act of disloyalty for a fiduciary to profit personally from the use of information secured in a confidential relationship, even if such profit or advantage is not gained at the expense of the fiduciary. The result is nonetheless one of unjust enrichment which will not be countenanced by a Court of Equity.[20]

With the exception of some rescissory damages cases, equitable remedies may not involve the analyst performing an economic damages analysis.

Economic Damages Analysis

Performing the economic damages analysis is the final element of this discussion. All of the elements previously discussed have a direct or indirect impact on the nature of the damages analysis and the types of damages methods the analyst will adopt. Analysts who are also business valuation specialists are often qualified to perform damages measurement analyses. This is the case for several reasons.

First, measuring economic damages is often related to quantifying the value of a business. This relationship can be seen by comparing (1) the methods of measuring economic damages and (2) the methods of valuing a business.

Second, business valuation analysts frequently enter the field of economic damages analyses.

Third, one of the damages measurement methods is the lost business value method. This measurement method can be very problematic for analysts who are not trained in business valuation. This is because, in the fluid and changing landscape of many litigation cases, the appropriate damages method may not be evident at the beginning of the case. If at an advanced stage in the case it becomes clear that the best damages measurement method is the lost business value method, this creates a potential problem for the analyst who does not have experience performing business valuations.

Fourth, because analysts who are not also business valuation specialists are less experienced in performing a lost business value method, they are less likely to select this damages measurement method—even if it may be the most appropriate method.

Considerations

The analyst should examine the following considerations when selecting the appropriate damages measurement methods:

1. The type of claim that is set forth in the judicial action
2. The requisite legal standards supporting the types of claims set forth in the judicial action
3. The type of asset or business that is subject to the damages analysis
4. If applicable, the existence of (a) case law, (b) judicial precedents, or (c) a particular judge's precedents with respect to preferred methods
5. Statutory measures
6. The input and instruction of counsel

As a condition for commencing a judicial action, counsel may either assume or determine that the types of claims being advanced in the lawsuit satisfy the required legal standards. However, this may not be true in every case. Also, such determinations may not be definitive until the case is underway and the documents become available through discovery. For this reason, counsel may ask the analyst to perform some initial analyses in order to ensure that the remaining legal standards can be satisfied before going further into the lawsuit. Conversely, the analyst may raise these issues with counsel early in the case. The analyst may perform some of these initial analyses before investing too much time and expense into the case, in order to ensure that any of the legal standards that relate to the damages analysis are satisfactory and supportable.

It is important to note the inherent scope and objectives that should be part of the analyst's work. First, the analyst provides an independent and impartial analysis and is not an advocate for the client. Second, the analysis performed by the

analyst is theoretically intended for the court's benefit, even though the analyst is retained, and paid, by the client. Therefore, the analyst should be judicious about what assumptions he or she is willing to accept and the scope of his or her opinions.

A less than cautious approach by the analyst may (1) put the damages analysis at risk in the subject lawsuit, (2) expose the analyst to a *Daubert* challenge, and (3) compromise the credibility of the analyst. The damages analysis prepared by the analyst is not necessarily required to address all, or maybe any, of the legal standards related to the claims of the lawsuit so long as these legal standards are addressed by other constituents to the case. For example, counsel, another expert, a fact witness, or some other constituent may address the required legal standards.

General judicial precedent and a specific judge's precedent may both play a role in the selection of the appropriate damages measurement method. Examples of generally accepted methods used in certain types of cases include royalty rate and lost profits calculations in patent cases, trendline analysis in business interruption insurance cases, event studies in securities cases, and market share analyses in antitrust cases.

In other types of cases, there may be multiple appropriate damages measurement methods and each of these methods may yield different results. For example, in patent cases, if there are not enough data to apply the lost profits method, an alternative method may be a royalty rate method.

Thoughtful consideration should be exercised in selecting the appropriate damages measurement method to apply. If the analyst selects a damages measurement method that will simply generate a higher economic damages calculation than alternative methods, but the analysis includes assumptions that may be questionable, this may result in the damages analysis being rejected by the court. The analyst should rely on a set of assumptions and supporting data that are clear, understandable, logical, and supportable both (1) in written form in the expert report and (2) orally in deposition and trial testimony.

A final consideration regarding the selection of a damages measurement method is that of making a concerted effort to determine the true harm to the plaintiff—and not just performing a calculation. For example, let's say a start-up company enters into a contract with a party to sell its products at both specified contractual prices and specified contractual volumes over the term of the contract. If, as a result of the defendant's breach, the plaintiff becomes financially distressed and is forced to file for bankruptcy, the plaintiff may file a lawsuit for breach of contract.

In this case, the analyst may consider two damages measurement methods: (1) the lost profits method and (2) the lost business value method. Let's say the damages measurement using the lost profits method results in $30 million. On the other hand, the damages measurement using the lost business value method results in $5 million. This damages measurement is so much lower than the lost profits measurement because the company was still in the start-up stage. Even though both calculations were performed correctly and relied on appropriate damages measurement methods, based on the facts and circumstances of the case, the true measurement of the damages suffered by the plaintiff may favor the lost profits method result of $30 million.

Damages Measurement Methods

The selected damages measurement methods should comport with the types of claims and the types of remedies in the subject lawsuit. Determining the objectives of the judicial action may guide the selection of damages measurement methods.

There are a number of damages measurement methods available to the analyst. Depending on the type of claim, there are generally accepted damages measurement methods. There are primary damages measurement methods and there are supporting damages measurement methods.

Primary Damages Measurement Methods

This discussion addresses three primary damages measurement methods: (1) the lost profits method, (2) the lost business value method, and (3) the reasonable royalty method. These three damages measurement methods do not represent the universe of all damages measurement methods.[21]

The Lost Profits Method

Perhaps the most common damages measurement method is the lost profits method. The lost profits method quantifies the additional profits (above actual profits) that the plaintiff would have achieved but for the wrongful act of the defendant. In performing a damages measurement analysis by applying the lost profits method, other supporting damages methods and calculations may be involved. These analyses may include the before-and-after method, the projections (but-for) method, the yardstick method, the market share method, the ex post method, and the ex ante method.

Instead of lost profits on lost sales, the claim could be that the plaintiff's loss relates to lower product pricing. In this case, the lost profits method would still be applied in measuring damages.

However, instead of the "loss" being the difference between but for sales and actual sales, the loss would be the difference between the but for price of product sales and the actual price of product sales.

If counsel is seeking restitution remedies in the judicial action, then an unjust enrichment damages measurement may be involved in the economic damages analysis. Measuring damages for unjust enrichment is similar in manner to estimating lost profits. However, instead of applying the lost profits method in analyzing the plaintiff's business, the lost profits method is applied in analyzing the defendant's business.

If counsel is seeking convoyed sales based on the entire market rule, these lost sales that the plaintiff suffered will also be estimated by applying the lost profits method.

The Lost Business Value Method

This damages measurement method is often applied when the defendant's wrongful act results in the destruction of the plaintiff's entire business. In this instance, the analyst will perform a business valuation of the plaintiff's whole business as of a date prior to the commission of the wrongful act.[22]

In an instance where the defendant's wrongful act did not result in the destruction of the plaintiff's entire business, it may also be appropriate to apply the lost business value method. In this case, the damages analysis involves measuring the loss to the plaintiff's business value from the defendant's wrongful act by performing a business valuation as of a date prior to the wrongful act and another business valuation as of a date immediately after the wrongful act. The difference between these two business value indications represents a measurement of damages.

Facts and circumstances will dictate whether it is more appropriate to measure damages by applying the lost profits method or the lost business value method. Most analysts may tend to favor the lost profits method over the lost business value method due to the complexities of performing a business valuation.

There is a body of professional literature that discusses the generally accepted business valuation approaches and methods. These business valuation approaches and methods are summarized below.

The Reasonable Royalty Method

This method is usually applied in intellectual property ("IP") cases where the measurement of damages considers licensing the IP for royalty income. In cases where the lost profits method cannot be applied because of a lack of financial information, the reasonable royalty method may be applied instead due to the simplicity of the analysis (which involves a revenue assumption and a royalty rate assumption). There are a number of methods that may be applied to estimate the royalty rate. These royalty rate measurement methods are discussed below.

Supporting Damages Measurement Methods

Supporting damages measurement methods are used as inputs into one or more of the primary damages measurement methods. We categorize these supporting damages measurement methods by what they typically measure.

Estimating Revenue

There are four methods that may be employed to project the damaged entity revenue. These methods can be applied to all of the damages measurement methods discussed above. They are as follows:

1. The before-and-after method – This method involves comparing the revenue performance of the business before and after the alleged wrongful act.
2. The projections (but-for) method – This method involves comparing the actual revenue to revenue projections that were expected to take place but for the wrongful act.
3. The yardstick method – This method involves comparing actual revenue as a result of the wrongful act with the revenue of comparable businesses that were not affected by the wrongful act.
4. The market share method – This method involves comparing the plaintiff's market share prior to the wrongful act with its actual market share after the wrongful act.

Timing

Timing refers to the ex post method and the ex ante method. This factor was discussed above. Both of these methods can be applied to all damages measurement methods.

Business Valuation Approaches and Methods

There are three generally accepted business valuation approaches. These generally accepted approaches are the (1) income approach, (2) market approach, and (3) asset-based approach.

The income approach methods include (1) the discounted cash flow ("DCF") method and (2) the direct capitalization method. Both of these income approach methods are based on the principle that

the value of the business is equal to the present value of the future income to be derived by the owners of the business. Both of these methods require the following analyses: revenue analysis, expense analysis, investment analysis, capital structure analysis, residual value analysis, and discount rate analysis.

The DCF method involves a projection of the subject company results of operations for a discrete, multiyear period. The discrete cash flow projection is then converted to a present value. The DCF method also involves a terminal value analysis at the end of the projection period. The direct capitalization method involves dividing a market-derived direct capitalization rate into a normalized estimate of future income.

The market approach methods include (1) the guideline publicly traded company method and (2) the guideline merged and acquired company method. Both of these market approach methods are based on the principle that the value of a business interest may be estimated based on what astute and rational capital market investors would pay to own an equity interest in a company similar to the subject company. Particular attention is paid to the appropriate discounts and premiums for controlling ownership interest, noncontrolling ownership interest, lack of marketability, cost of an initial public offering, and so forth.

In applying the guideline publicly traded company method, capital market pricing multiples of publicly traded guideline companies are used to estimate the value of the subject company. In applying the guideline merged and acquired company method, the value of the subject company is estimated by analyzing the prices paid for controlling ownership interests in guideline merged and acquired company transactions that have occurred over a reasonably recent time period.

The asset-based approach considers the values of the subject company assets (both tangible and intangible) and the values of the subject company liabilities (both contingent and recorded). The asset-based approach encompasses a valuation (either discrete or collective) of the subject company (1) current assets, (2) tangible real property, (3) tangible personal property, and (4) intangible assets. This valuation approach also encompasses a valuation (either discrete or collective) of the subject company (1) current liabilities, (2) notes payable, and (3) contingent liabilities.

Estimating Royalty Rates

There are four generally accepted methods to estimate royalty rates. Any one of these four methods can be used in the reasonable royalty method. These estimation methods are listed below:

1. The incremental profit method – This method involves applying the weighted average cost of capital of comparable companies that do not operate the IP to all the assets of the plaintiff.

   This process results in an estimate of the profits the company would expect to earn if it did not use the IP. These profits are subtracted from the profits earned by the plaintiff to arrive at incremental profit from the IP. This measure of incremental profit is divided by the defendant's wrongful sales to arrive at a reasonable royalty rate.

2. The differential income method – This method involves applying two DCF methods, one with the effects of the wrongful act and one without the effects of the wrongful act.

   Subtracting the lower projected cash flow from the higher (but-for) cash flow and dividing these each year by sales will result in an estimate of a reasonable royalty rate.

3. The comparable uncontrolled transaction ("CUT") method – This method involves comparing the subject IP to third party IP found in arm's-length license agreements of CUTs. The royalty rates of the third-party CUTs provide an estimate of a reasonable royalty rate.

4. Comparable profit margin method – This method involves subtracting the expected profit margin of the subject company from the normal profit margin of comparable companies that do not use the subject IP.

   The difference between these two profit margins provides an estimate of a reasonable royalty rate.

Summary and Conclusion

This discussion addressed four elements to a judicial action and provided background information and context to some of the legal aspects that affect every damages analysis.

Understanding these elements should better inform the analyst about a judicial action and the nature of the claims and remedies in the court action. In turn, this knowledge should aid the analyst in performing the damages measurement analysis and selecting the appropriate damages measurement methods.

It is important that the legal standards in the litigation be addressed by one or more participants to the lawsuit. Failure to satisfy these legal standards

may result in the rejection of the damages analysis or even a cancelation of the judicial action.

It is important for the analyst to rely on a set of assumptions and supporting data that are clear, understandable, logical, and supportable both (1) in written form in the expert report and (2) orally in the deposition and trial testimony.

Although retained by one party to the judicial action, the goal of the analyst's report and testimony is to aid the court in measuring the amount of damages suffered by the plaintiff because of the wrongful act of the defendant.

Notes:

1. *Restatement of the Law Second, Contracts 2d, Pamphlet No. 3* (Philadelphia, PA: American Law Institute, Student Edition, 1981), Sections 316-end.
2. Henry R. Cheeseman, *Business Law*, 5th ed. (Upper Saddle River, NJ: Pearson Education, 2004), 192–93.
3. Ibid., 74–81.
4. See, e.g., Dick v. Lewis, 506 F. Supp. 799, 805 (D.N.D. 1980) (applying North Dakota law) (citing W. Page Keeton, et al., Prosser and Keeton on Torts § 41 (4th ed. 1971)); Gercey v. United States, 409 F. Supp. 946, 954 (D. R.I. 1976) (Suits in Admiralty Act case) (citing W. Page Keeton et al., Prosser and Keeton on Torts § 41 (4th ed. 1971)); Culver v. Bennett, 588 A.2d 1094, 1097 (Del. 1991) (same); Anderson v. St. Francis–St. George Hosp., Inc., 671 N.E.2d 225, 227 (Ohio 1996) (same).
5. Paige v. Saint Andrew's Roman Catholic Church Corp., 734 A.2d 85, 91 (Conn. 1999) (alterations in original) (internal quotations and citation omitted).
6. Palsgraf v. Long Island R.R. Co., 162 N.E. 99, 103 (N.Y. 1928) (Andrews, J., dissenting).
7. Smith v. W. Union Tel. Co., 83 Ky. 104 (Ct. App. 1885) (emphasis in original); see also Doe v. Linder Constr. Co., 845 S.W.2d 173, 181 (Tenn. 1992) ("The consequences of an act go forward to eternity, and the causes of an event go back to the dawn of human events, and beyond. Any attempt to impose responsibility upon such a basis would result in infinite liability.") (alteration in original) (internal quotations and citations omitted); Blue Chip Stamps v. Manor Drug Stores, 421 U.S. 723, 729-55 (1975).
8. Cheeseman, *Business Law*, 200.
9. https://corplaw.delaware.gov/delaware-court-chancery-supreme-court/, dated May 6, 2018.
10. See John R. Trentacosta, *Damages in Breach of Contract Cases*, 76 Mich. Bus. J. 1068 (1997) (describing expectation damages as damages that place the injured party in the same position as if the breaching party completely performed the contract); Bausch & Lomb, Inc. v. Bressler, 977 F.2d 720, 728-29 (2d Cir. 1992) (defining expectation damages as damages that put the injured party in the same economic position that party would have enjoyed if the contract had been performed). Also, see Restatement (Second) of Contracts §344 cmt. a (1981). Expectation has been called "a queer kind of 'compensation,'" because it gives the promise something it never had, i.e., the benefit of its bargain. L.L. Fuller & William R. Perdue, Jr., *The Reliance Interest in Contract Damages: 1*, 46 Yale L.J. 52, 53 (1936). The policy underlying expectation damages is that they promote and facilitate reliance on business agreements. Id. at 61–62.
11. Caprice L. Roberts, "Restitutionary Disgorgement for Opportunistic Breach of Contract and Mitigation of Damages," *Loyola of Los Angeles Law Review* 42 (2008): 131–44.
12. Uniform Commercial Code, Section 2-610; Restatement (Second) of Contracts, Section 253.
13. Cheeseman, *Business Law*, 306.
14. https://www.upcounsel.com/statutory-damages, dated May 9, 2018.
15. Cheeseman, *Business Law*, 94–95.
16. Richard R. Posner, *Economic Analysis of Law*, supra note 6, at 131. For an argument in favor of punitive damages in contracts, see William S. Dodge, *The Case for Punitive Damages in Contracts*, 48 Duke L. J. 629 (1999).
17. Mark A. Allen, et al., *Reference Guide on Estimation of Economic Damages, in Reference Manual on Scientific Evidence* (Federal Judicial Center, ed. 3d ed. 2011), 437.
18. Cheeseman, *Business Law*, 311–13.
19. Roman L. Weil, et al., *Litigation Services Handbook – The Role of the Financial Expert*, 6th ed. (Hoboken, NJ: John Wiley & Sons, Inc., 2017), chapter 4.4, p. 19.
20. Thorpe by Castleman v. CERBCO, Inc., 676 A.2d 436, 445 (Del. 1996).
21. Previously, we indicated that certain types of court cases have established precedents for very specific types of economic analyses such as market share analyses in antitrust cases and event studies in securities cases.
22. Previously, we explained an example where the lost business value method understated the true damages because the plaintiff's business was a start-up company at the time of the wrongful act.

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Washington v. Kellwood Company: Applying an Aggressive Lost Profits Analysis, the Plaintiff is Awarded $1

Ben R. Duffy

This discussion summarizes the related Washington v. Kellwood Company *judicial decisions. Specifically, this discussion focuses on how the insufficient and ineffective damages measurement analyses performed by the plaintiffs' expert resulted in a multimillion dollar damages award being reduced to $1.*

Introduction

Washington v. Kellwood Company,[1] involves a breach of contract claim in which the plaintiff sought compensatory damages. The United States District Court for the Southern District of New York (the "District Court"), determined that a breach of contract existed, but the plaintiffs and their damages analyst were unable to produce a reasonable and persuading lost profits analysis. After multiple attempts to demonstrate a reasonable lost profits amount, the plaintiffs were awarded $1.

The District Court decision was upheld by the Unites States Court of Appeals, Second Circuit (the "Appeals Court"), bringing an end to more than a decade of litigation.

This discussion provides insight as to why the plaintiff damages expert's damages analysis was not accepted by the Appeals Court, and why the application of a thorough and more reasonable damages analysis could have resulted in a significantly greater damages award.

Specifically, this discussion (1) summarizes the plaintiff damages expert's yardstick analysis and (2) highlights the importance of considering if the selected damages measurement methods, analysis inputs, and damages conclusions are reasonable.

Background Summary

Sunday Players

Sunday Players was a compression sportswear start-up company founded by Daryl Washington ("Washington") in 2002. Washington believed that Sunday Players had a competitive advantage due to (1) its partnership with NFL player Izell Reese and (2) its "superior" clothing designs.[2]

During its entire period of operations, Sunday Players only generated less than $200,000 in sales. Sunday Players always lacked the capital to build or to purchase a manufacturing facility. Therefore, Sunday Players required assistance from another company in order to produce its clothing and clothing samples.

Kellwood Company

Kellwood Company ("Kellwood"), a private label clothing manufacturer founded in 1961, manufactured clothing that retailers could sell under their own brand names. Kellwood also manufactured clothing under its own brand names—in order to hedge against any earnings volatility in its private label business.

Kellwood was organized into several divisions, including a performance apparel division. The Kellwood performance apparel division operated

within the company's intimate apparel division. This organization structure was selected because the process of manufacturing compression wear is similar to the process of manufacturing female undergarments.

Terms of the Agreement

Sunday Players originally approached Kellwood. Kellwood had the manufacturing capacity and the capital to allow the Sunday Players brand to grow.

Initially, Kellwood had the intention to acquire Sunday Players. However, Washington was unwilling to sell the company outright. Instead, the parties agreed to an exclusive three-year license. The license included a three-year renewal option, exercisable only by Kellwood.

The license agreement entitled Kellwood the exclusive right to produce, manufacture, advertise, promote, import, distribute, and sell the Sunday Players brand. Kellwood agreed to spend 3 percent of the revenue generated from the sale of Sunday Players branded apparel on marketing the brand.

The license agreement included a carve-out, offering Washington the right to market the Sunday Players brand directly to universities, schools, and approved independent retailers and e-commerce platforms.

The license agreement also offered Washington 5 percent of all net sales derived from the Kellwood sale of Sunday Players branded apparel. But, the license did not guarantee a minimum payment. However, the license provided for Washington to receive an annual inventory of sample clothing, not to exceed $25,000.

The license agreement did not offer an early termination right to either party. And, the license required Sunday Players/Washington to give written notice if the opposite party was suspected of breaching the license.

Marketing Efforts

Kellwood made a strategic decision to postpone the marketing of Sunday Players products directly to consumers and sports teams until the Sunday Players merchandise was available in retail stores. Kellwood unsuccessfully attempted to sell Sunday Players merchandise to May Company, Olympia Sports, Modell's, Marshall Field, and other retail stores.

The Sunday Players marketing director, prior to the Kellwood license, took a different approach to marketing the brand. This executive believed that Sunday Players should use both a "top-down" approach and a "bottom-up" approach.

The top-down approach focused on endorsements and television exposure in order to bring the Sunday Players brand to the attention of young athletes. The bottom-up approach focused on Sunday Players sponsoring local sports teams and marketing directly through social media platforms.

Between November 2003 and April 2005, the Sunday Players sales representatives sold less than $150,000 of merchandise.[3]

During August 2003, the Kellwood performance division executive met with an MTV marketing executive to discuss a potential marketing deal for Sunday Players. The MTV marketing executive entertained the idea of placing Sunday Players products on MTV television programs and advertisements. However, the deal was contingent on Sunday Players selling $500,000 worth of performance apparel prior to receiving the advertising space.

In March 2004, Kellwood and MTV came to preliminary terms on a sublicense agreement. MTV agreed to produce and air a commercial for Sunday Players for a $50,000 fee, contingent on Kellwood selling $500,000 of Sunday Players merchandise. However, against the urging of Washington and MTV, Kellwood did not sign the sublicense agreement with MTV.

Breach of Contract

During March of 2005, Kellwood terminated the exclusive license agreement with Sunday Players after selling $0 in merchandise. Kellwood had also failed to market directly to consumers during the duration of the license agreement.

Washington filed a lawsuit and claimed lost profits and lost business value due to the Kellwood breach of the license contract. Washington claimed that the Kellwood early termination "destroyed the brand," ultimately putting Sunday Players out of business.

Washington submitted a letter to Kellwood, protesting the early termination and mentioning the absence of a termination provision in the licensing agreement. Washington also protested that Kellwood did not put forth a reasonable effort to market the Sunday Players brand effectively, by failing to (1) sign a contract with MTV, (2) buy advertising, or (3) sell to stores.

Kellwood did not respond to the letter submitted by Washington.[4]

Damages Measurement Analysis

Attempt at Recovering Lost Profits

Washington hired a forensic analyst to measure the economic damages associated with the Kellwood early contract termination and inadequate marketing attempts of the Sunday Players brand.

The Sunday Player forensic analyst constructed a lost profits and a lost business value damages analysis—by applying the yardstick method of damages measurement.

The Yardstick Method

One objective of an economic damages analysis is to measure the amount of lost profits related to the damages event from the current (analysis) date through the expected end of the damages period.

The yardstick method measures economic damages on the basis that the damaged company's projection is an independent variable, or a "yardstick." An independent variable is typically one that is easier to project than company projections (e.g., a widely accepted statistic or index).

In this case, the Sunday Players damages analyst relied on the historical sales performance of Under Armour, a market leader in the compression sportswear industry, as the "yardstick" in the damages analysis.

The damages analyst considered the following factors when evaluating the comparability of Under Armour and Sunday Players:[5]

- Manufacturing capability
- Retail distribution
- Business strategies
- Brand philosophy

The damages analyst concluded that the previously discussed television contract with MTV would have been comparable to the Under Armour television contract with ESPN. And, the Sunday Player contract should lead to a similar earnings growth trajectory.

The damages analyst concluded that the Sunday Players 2005 through 2007 revenue growth corresponded with the Under Armour 2002 through 2004 revenue growth. However, the damages analyst claimed that there were differences between Under Armour and Sunday Players that support an adjustment to the Under Armour revenue to better reflect the specific circumstances and risks associated with Sunday Players. These differences include (1) the Under Armour market dominance and (2) the increasing competition from other sportswear brands.

Based on these factors, the plaintiff damages analyst reduced the 2002 through 2004 Under Armour revenue by 50 percent. Therefore, the projected Sunday Players—or Kellwood—sales of Sunday Players merchandise for 2005 through 2007 was estimated to be $82,000,000.

The damages associated with royalties that were lost during this period were measured at:

1. $213,000 for the period between the inception of the contract and the Kellwood early termination and
2. $3,570,000 from termination through the end of the contract term.

The damages analyst also calculated that Sunday Players had lost $532,500 in brand value as of March 2005. The brand value damages measurement relied on the assumption of Sunday Players achieving 50 percent of the sales of Under Armour.

Initial Decision

In the initial District Court proceedings, "[t]he jury returned a verdict in favor of Washington, stating that Kellwood breached contract, and awarded Sunday Players with $250,000 in lost profits between November 14, 2003, and March 14, 2005; $4,100,000 in lost profits between March 14, 2005, and January 31, 2007; and, alternatively, $500,000 in lost market value as of March 14, 2005."[6]

However, Kellwood put forth a post-trial challenge to the amount of damages awarded by the jury. The challenge was made in the District Court, but with a different judge presiding than the judge in the initial jury trial.

Kellwood filed a motion under Federal Rule 50(a), which states, "if a party has been fully heard on an issue during a jury trial and the court finds that a reasonable jury would not have a legally sufficient evidentiary basis to find for the party on that

issue, the court may . . . resolve the issue against the party."

According to Kellwood, the application of Rule 50(a) was justified for the following reasons:

1. First, that Sunday Players had not proven that Kellwood breached any contractual obligation. And, second, that "the license agreement's language is explicit and unambiguous that…Kellwood shall spend 3 percent of gross sales" on marketing, and Kellwood met that obligation.[7]
2. Sunday Players and its damages analyst had not provided a reasonable basis for the assumption that Sunday Players would be able to achieve 50 percent of the revenue of Under Armour, if reasonable marketing efforts had been made by Kellwood.

The District Court accepted the Rule 50(b) motion. Rule 50(b) states the following:

> If the court does not grant a motion for judgment as a matter of law made under Rule 50(a), the court is considered to have submitted the action to the jury subject to the court's later deciding the legal questions raised by the motion. No later than 28 days after the entry of judgment—or if the motion addresses a jury issue not decided by a verdict, no later than 28 days after the jury was discharged—the movant may file a renewed motion for judgment as a matter of law and may include an alternative or joint request for a new trial under Rule 59. In ruling on the renewed motion, the court may:
>
> 1. allow judgment on the verdict, if the jury returned a verdict;
> 2. order a new trial; or
> 3. direct the entry of judgment as a matter of law.

The District Court (1) rejected the analyst's damages analysis and (2) determined that the award for lost profits should be set aside due to a lack of reasonable and convincing evidence of lost profits. Initially, the District Court ordered a retrial, within the District Court, but with a new jury that had not been exposed to the previous expert testimony.

The District Court referenced *Ashland Management v Janien*, which states that "The law does not require that it [damages] be determined with mathematical precision. It requires only that damages be capable of measurement based upon known reliable factors without undue speculation."[8]

In addition, the District Court cited *Freund v. Washington Sq. Press, Inc.*, which states that a plaintiff should provide a "stable foundation for a reasonable [lost profits] estimate" or the claim "fails for uncertainty."[9]

The District Court pointed out that Sunday Players did not have (1) a record of profitability or (2) a reasonable basis to justify the existence of lost profits.

Sunday Players was a start-up business, lacking capital, brand recognition, and sales contracts. Sunday Players sought the license agreement with Kellwood in hopes that Kellwood would be able to (1) provide capital, (2) grow the Sunday Players brand, and (3) manufacture its clothing.

Although Sunday Players believed that the Kellwood license agreement would allow the Sunday Players brand to grow and succeed, the District Court found that the Sunday Players arguments for lost profits lacked support due to the company's lack of sales history.

However, Washington disputed that Sunday Players was not a "new business." Therefore, Sunday Players claimed that the District Court should consider the financial history and age of Kellwood when analyzing lost profits associated with the breach of contract.[10]

An additional argument against applying the Kellwood historical sales figures to those of Sunday Players was that Kellwood did not have a record of selling branded compression wear. Although Kellwood had manufactured private label compression apparel in the past, Kellwood did not have experience selling branded compression wear to retailers. Therefore, the District Court concluded that it was not reasonable to compare the Kellwood experience in selling private label compression clothing to the hypothetical success of Sunday Players clothing.

Since Sunday Players lacked sales history, lost profits could only be proven by comparing Sunday Players to a similar business with a sales record and obtainable financial data. Therefore, Sunday Players was limited to comparing itself with a public company. However, the majority of similar public companies were significantly larger than Sunday Players.

The District Court decided that the following were the important issues with the Sunday Players damages analyst selection of Under Armour as a comparable company.[11]

1. Lack of Causation: Sunday Players failed to prove that the marketing strategy of Under Armour would have been successful for Sunday Players.

2. Lack of Comparability: The sales history of Under Armour could not be used as a proxy to estimate the level of sales Sunday Players would have achieved because the companies vary significantly.
3. Lack of Understanding: There was not a common understanding between Washington and Kellwood that Sunday Players could have obtained 50 percent of the Under Armour revenue at the time the contract initiated.

While the facts of the case and certain information presented by Sunday Players supports the argument that the Kellwood breach of the license agreement was harmful, the District Court did not accept the Sunday Players claims for lost profits.

For the reasons discussed above, the jury's damages award was vacated, and a new damages trial was ordered in the District Court.

The District Court determined that at the subsequent trial, Sunday Players would not be permitted to apply the testimony of its damages analyst, under Federal Rules of Evidence 403. This was because the damages analyst's measurement presented a danger of "unfair prejudice" and "misleading the jury."[12,13]

The District Court determined that the jury at the subsequent trial was to be instructed on nominal damages, in the instance that Sunday Players cannot provide reasonable evidence for its lost profits claim.

Reattempt at Recovering Lost Profits

Before proceeding with a retrial, the District Court required that Sunday Players present enough nonspeculative evidence to warrant a retrial. This presented a second opportunity for Sunday Players to prove a realistic and supportable damages amount, since it was determined that Kellwood had in fact breached the license agreement.

Additional Evidence

After the District Court dismissal of the initial damages analysis, with measured damages of $4.35 million, Sunday Players increased its damages claim to a range of $5 million to $140 million.

Additional evidence that Sunday Players attempted to admit to the retrial included the following:

1. Profit projections produced by Kellwood
2. The Sunday Players business plan
3. MTV's projections and an MTV retail marketing executive's testimony
4. Washington's testimony
5. Sunday Players co-owners' testimony
6. The Sunday Players previous marketing strategist's testimony

The Kellwood profit projections and the Sunday Players business plan were not admitted as new evidence. This was because (1) both documents were available during the initial trial and (2) Sunday Players had the opportunity to present the documents as evidence at that time.

"Federal Rule of Civil Procedure 59(e) and Local Civil Rule 6.3 govern motions for reconsideration, and these rules are intended to ensure the finality of decisions and to prevent the practice of a losing party examining a decision and then plugging the gaps of a losing motion."[14]

The District Court considered the MTV projections to be solely hearsay. Since the MTV retail marketing executive did not perform the projections, could not produce the projections, and could not speak on behalf of MTV, the MTV projections were not admitted as evidence.

Washington's testimony as an experienced accountant was also not admitted. This is because the testimony was not admissible under Rule 701. Federal Rules of Evidence 701 only allows lay opinion testimony when it is "not based on scientific, technical, or specialized knowledge."

The testimonies of Curley Kelly, Izell Reese, and Christopher Plumlee were not admitted for the same reason as Washington's testimony, under Federal Rules of Evidence 701.

Sunday Players also attempted to reopen discovery and hire a new damages analyst. However, the District Court denied this request on the grounds that Sunday Players had intentionally and strategically relied on a single analyst in the first trial. And, that damages analyst had "engaged the jury in a flight of fancy that resulted in a multimillion dollar lost profits verdict for a company that sold less than $200,000 of merchandise in its entire history."[15]

Final District Court Ruling

The District Court determined that a retrial would be an exhaustive and unproductive use of the resources of the trial court and that it was unnecessary to proceed with a retrial.

The District Court stated that "Litigation is not an interative process." Therefore, the plaintiff's motion for a retrial was denied and the District Court offered the plaintiff a nominal award of $1.[16]

The District Court referenced *Parrish v. Sollecito* in stating that a reconsideration motion is not "a vehicle for a party dissatisfied with the court's ruling to advance new theories that the movant failed to advance in connection with the underlying motion, nor to secure a rehearing on the merits with regard to issues already decided."

Instead a "motion for reconsideration should be granted only when the defendant identifies an intervening change of controlling law, the availability of new evidence, or the need to correct a clear error or prevent manifest injustice."[17]

Appeals Court Decision

Washington appealed the District Court decisions to (1) exclude the damages measurement methodologies employed by the Sunday Players damages analyst, (2) deny the motion for a new trial on damages, and (3) award nominal damages in the amount of $1.

However, the Appeals Court upheld each of the District Court decisions.[18]

The Appeals Court affirmed the District Court opinion regarding the shortcomings of the plaintiff's expert's lost future profits analysis. The Appeals Court affirmed that "a new venture whose profits are 'purely hypothetical' and that would require 'untested' sales to 'hypothetical' consumers does not support a damages award."[19]

The Appeals Court determined (1) that the District Court was correct to opine that Under Armour was not a reasonable "comparator" and (2) that the damages analysis based on this comparator was so unfounded that it failed to establish any legal basis for awarding lost-profits damages.

The Appeals Court also determined that the District Court was correct to opine that the lost business value analysis provided by the plaintiff's damages analyst failed under the same premise as the lost future profits damages analysis. That is, both the lost business value damages analysis and the lost future profits analysis relied on Under Armour revenue as a "yardstick" comparison.

Practical Considerations

This case provides important lessons both for economic damages analysts and for litigation attorneys.

This case illustrates the importance of (1) selecting a reasonably comparable "yardstick" comparator in a yardstick analysis, (2) selecting reasonable economic damages measurement methods, and (3) considering the reasonableness of the overall damages conclusion.

In order to produce a supportable yardstick analysis, the damages analyst should carefully select the "yardstick." In this case, the yardstick applied by the Sunday Players damages analyst was not determined to be a reasonable basis for measuring lost profits.

When the subject company is a start-up, with no history of generating material revenue, a large publicly traded company is not likely to be a reasonable yardstick comparator. A damages analyst should consider if a guideline company would be reasonable for comparison in a business valuation analysis before relying on it as a comparable in a yardstick damages analysis.

The assumption that Sunday Players, having lacked sales history, could have achieved even half of the success that Under Armour had displayed was unsupportable.

In the instance that a reasonable yardstick cannot be determined for a lost profits measurement analysis, then the analyst may consider other damages measurement methods. Even if the analyst believes that the yardstick analysis is fair and reasonable, support provided by the application and consideration of multiple lost profit measurement methods may improve the damages analysis.

In the case of Sunday Players, the damages analyst may have reached a more reasonable damages conclusion by applying the "but for" method, or a lost profits method that incorporated projections available at the time the damages occurred.

In fact, in desperation, the plaintiffs attempted to introduce draft budgets for Sunday Players for consideration by the Appeals Court. This effort was rejected by the Appeals Court because Sunday Players had not established a foundation for introducing the new evidence. Had the damages analyst relied on the "but for" method and the more reasonable projections in the initial proceedings, the District Court may not have overturned the jury's initial damages award.

This lesson is valuable not only to damages analysts, but also to litigation counsel. Litigation counsel should work closely with damages analysts to ensure that the measurement methods being applied are reasonable, and that the damages analyst has all necessary information to conduct a supportable analysis. In the case of Sunday Players, both the damages analyst and the litigation counsel should have realized the absurdity of applying the yardstick method in the manner they did.

The damages analyst should have requested and considered any available projections when deciding what damages measurement methods to apply. Likewise, the litigation counsel should have ensured

that the relevant projections were obtained during discovery.

Finally, both the damages analyst and litigation counsel should consider the reasonableness of any conclusions reached before submitting an expert report.

The Sunday Players damages analyst got lost in the weeds when applying the yardstick method, considering specific product offerings and making adjustments to the Under Armour revenue to reflect prevailing market conditions. The damages analyst failed to consider that no reasonable level of adjustments could account for the vast difference in size and maturity between Sunday Players and Under Armour.

Both the District Court and the Appeals Court were quick to recognize this fatal flaw in the plaintiff's damages measurement analysis. That is, a market leader with hundreds of millions of dollars in revenue was nowhere near a reasonable "yardstick" comparator for Sunday Players.

The Sunday Players litigation counsel should have considered the reasonableness of the damages conclusion and not submitted an expert report that could be so easily dismissed by both the District Court and the Appeals Court. Prior to submitting an expert report, the litigation counsel should be prepared to defend their damages analyst's methodology and conclusions.

Further, given a second chance to submit a more reasonable damages measurement analysis, the plaintiff submitted an even higher range of damages. By submitting a damages measurement range of $5 million to $140 million, after the initial damages award of $4.35 million was vacated as unreasonable, the District Court had no choice but to conclude that the plaintiffs had no intention of pursuing a realistic damages award. The litigation counsel should have seen the writing on the wall and submitted a damages measurement range that was potentially palatable to the District Court.

Conclusion

This case study highlights the importance of putting forth a damages measurement analysis that is both reasonable and supportable. This lesson applies to (1) the inputs relied on in applying a damages measurement method, (2) the methods relied on in conducting a damages measurement analysis, and (3) the conclusions reached in the damages measurement analysis.

In the case of Sunday Players, (1) Under Armour was not a reasonable yardstick comparator for a start-up company, (2) the yardstick method was likely not the most appropriate method available given the lack of comparable publicly traded companies, and (3) damages measurement conclusions ranging from $4.35 million to $140 million were not reasonable for a company with total sales of less than $200,000.

If the Sunday Players damages analysis had been more reasonable, and if other methods for measuring lost profits had been applied, then Sunday Players may have received a significantly greater award than $1.

Notes:

1. Washington v. Kellwood Company, 05-CV-10034 U.S. Dist. Ct., 2016 WL 3920348 (S.D.N.Y. July 15, 2016).
2. Id.
3. Id. at *3.
4. Id.
5. Id. at *4.
6. Id.
7. Id.
8. Ashland Management, Inc. v. Janien, 82 N.Y.2d 395, 403 (N.Y. App. 1993).
9. Freund v. Washington Sq. Press, Inc., 34 N.Y.2d 379 (1974).
10. Washington v. Kellwood Company at *7.
11. Id.
12. Federal Rules of Evidence 403 states that the court may exclude relevant evidence if its probative value is substantially outweighed by a danger of one or more of the following: unfair prejudice, confusing the issues, misleading the jury, undue delay, wasting time, or needlessly presenting cumulative evidence.
13. Washington v. Kellwood Company at *13.
14. TufAmerica, Inc. v. Diamond, 12-cv-3529 (AJN), 2016 WL 3866578 (S.D.N.Y. July 12, 2016).
15. Washington v. Kellwood Company, 05-CV-10034 U.S. Dist. Ct., 2016 WL 5680374 at *8 (S.D.N.Y. Sept. 30, 2016).
16. Id. at *1.
17. Parrish v. Sollecito, 253 F. Supp. 2d 713, 715 (S.D.N.Y. 2003).
18. Washington v. Kellwood Company, 714 Fed. Appx. 35 (2nd Cir. 2017).
19. Id. at 40.

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The Changing Landscape of Delaware Dissenting Shareholder Appraisal Rights Litigation

Timothy J. Meinhart

Shareholders who dissent to a particular corporate transaction may exercise their appraisal rights and petition the court to determine the fair value of their shares. The Delaware Court of Chancery (the "Chancery Court") continues to be the primary venue for the resolution of these statutory appraisal actions. While the Chancery Court has routinely relied on generally accepted business and security valuation methods, such as the discounted cash flow method, in the past to determine fair value, a series of recent decisions have shown a preference for using the deal price, or a value below the deal price, as the most reliable evidence of fair value. Several important decisions in the Chancery Court over the past two years will undoubtedly continue to shape how litigants view fair value. This discussion provides a chronology of several important recent decisions and explains how considerations such as transaction structure and process and expected post-merger synergies factor into the Chancery Court's determination of fair value.

Introduction

Section 262 of the Delaware General Corporation Law provides shareholders who dissent from certain mergers or consolidations the right to receive the "fair value" of their stock—as determined in a judicial proceeding conducted in the Delaware Court of Chancery (the "Chancery Court"). In determining fair value, the law directs the Chancery Court to "take into account all relevant factors."[1]

The law also directs the Chancery Court to determine fair value "exclusive of any element of value arising from the accomplishment or expectation of the merger or consolidation."[2]

The fair value determination excludes any value resulting from the merger itself because its purpose is to compensate dissenting stockholders for what was taken from them. Consequently, the value of the stock should be appraised on a going-concern basis.[3]

The Chancery Court has interpreted the language of Section 262 to mean:

1. the court has a broad range of authority to consider virtually any admissible valuation methodology in determining fair value and
2. fair value should exclude expected post-transaction synergies or other value-impacting events that may result from the effectuation of the merger or the consolidation.

In presiding over appraisal rights cases during the past several years, the Chancery Court has generally gravitated toward fair value estimates arrived at using three generally accepted business valuation methods. These generally accepted business valuation methods are (1) the guideline public company method, (2) the guideline merged and acquired

company method, and (3) the discounted cash flow ("DCF") method.[4]

Of these three generally accepted business valuation methods, the Chancery Court has shown a propensity for placing a high degree of emphasis on conclusions provided by the DCF method.

Unlike the guideline public company method and the guideline merged and acquired company method—both of which have been the subject of criticism by the courts—the DCF method has often been viewed as the most theoretically sound business valuation method in appraisal rights proceedings. This view has been influenced in large part by the DCF method's simplicity. By its very nature, the DCF method simply estimates present value by discounting future expected returns using a risk-adjusted rate of return.

In several past decisions, the Chancery Court has determined the fair value of petitioners' shares by relying on the results of the DCF method. In some cases, the DCF analysis was prepared by one of the valuation analysts who testified at trial, and in other cases, the DCF analysis was prepared by the Chancery Court using inputs that, in the Chancery Court's view, were supported by the record.

Through its use and reliance on the DCF method, the Chancery Court became keenly aware that alternative assumptions for growth, profitability, and risk had a significant impact on the DCF method conclusion. These alternative assumptions were the primary reason why the Chancery Court was often faced with largely different business valuation opinions at trial, even when both valuation analysts were highly qualified and properly applied the DCF method.

Over the past two years, there has been a series of cases decided by the Chancery Court that may have a long-lasting impact on future shareholder rights appraisal litigation. These decisions will undoubtedly influence the methods that valuation analysts apply when estimating fair value for purposes of a statutory appraisal action.

In several of these cases, the Chancery Court has moved away from the generally accepted business valuation methods and has based its fair value determination on either the merger price, or in some instances, a value that was based on the pre-merger trading price of the target company.

The following discussion provides a chronology and analysis of several cases that illustrate the Chancery Court's gradual change in how it has determined fair value over the past two years.

Recent Case History

The Court of Chancery

The Chancery Court's gradual shift in how it views fair value in the context of an appraisal rights action can be traced back to the 2016 shareholder litigation involving Dell Inc. In the matter of *In re Appraisal of Dell Inc.* ("*Dell*"),[5] the Chancery Court was tasked with determining the fair value of Dell Inc. common stock in conjunction with its 2013 go-private merger transaction.

At trial, Dell Inc. contended that the merger consideration of $13.75 per share provided the best evidence of the stock's fair value at the closing of the transaction. While the Chancery Court agreed that the merger consideration was a relevant factor, it ultimately concluded that it was not the best evidence of the stock's fair value. In its decision, the Chancery Court noted that the Delaware Supreme Court (the "Supreme Court") "has eschewed market fundamentalism by making clear that market price data is neither conclusively determinative of nor presumptively equivalent to fair value . . ."[6]

In quoting the Supreme Court ruling in *Golden Telecom*,[7] the Chancery Court stated the following:

> Section 262(h) neither dictates nor even contemplates that the Court of Chancery should consider the transactional market price of the underlying company. Rather, in determining "fair value," the statute instructs that the court "shall take into account all relevant factors." Importantly, this Court has defined "fair value" as the value to a stockholder of the firm as a going concern, as opposed to the firm's value in the context of an acquisition or other transaction. Determining "fair value" through "all relevant factors" may be an imperfect process, but the General Assembly has determined it to be an appropriately fair process. . . . Section 262(h) unambiguously calls upon the Court of Chancery to perform an independent evaluation of "fair value" at the time of a transaction. It vests the Chancellor and Vice Chancellors with significant discretion to consider "all relevant favors" and determine the going concern value of the underlying company. Requiring the Court of Chancery to defer—conclusively or presumptively—to the merger price, even in the face of a pristine, unchallenged transactional process, would contravene the unambiguous language of the statute and the reasoned holdings of our precedent. It would inappropriately shift

> the responsibility to determine "fair value" from the court to the private parties. Also, while it is difficult for the Chancellor and Vice Chancellors to assess wildly divergent expert opinions regarding value, inflexible rules governing appraisal provide little additional benefit in determining "fair value" because of the already high costs of appraisal actions. . . . Therefore, we reject . . . [the] call to establish a rule requiring the Court of Chancery to defer to the merger price in any appraisal proceeding.

Notwithstanding the Supreme Court guidance on this issue, the Chancery Court noted that since *Golden Telecom*, the Court has considered the merger price as one of the relevant factors when determining fair value. And, in at least five decisions, the Chancery Court has found the merger price to be the most reliable indicator of the company's fair value.

The petitioners' valuation analyst used the DCF method to reach his conclusion that Dell Inc. had a fair value of $28.61 per share on the date of closing. The petitioners' estimate of fair value essentially argued that the merger undervalued Dell Inc. by approximately $23 billion. The respondents' valuation analyst at trial also estimated the fair value of the stock using the DCF method. The respondents' valuation analyst concluded a fair value for the stock at the time of the merger of $12.68 per share.

In reaching its decision, the Court constructed two DCF analyses using various inputs that it selected. The Chancery Court weighted the value indications of the two DCF analyses equally, which resulted in a concluded fair value of $17.62 per share. The Chancery Court stated that its concluded fair value comported with the evidence regarding the outcome of the Dell Inc. sales process.

The Chancery Court noted that "[t]he sale process functioned imperfectly as a price discovery tool. . . . Its structure and result are sufficiently credible to exclude an outlier valuation for the Company like the one the petitioners advanced, but sufficient pricing anomalies and dis-incentives to bid existed to create the possibility that the sale process permitted an undervaluation of the several dollars per share."[8]

Because the Chancery Court was unable to quantify the exact degree of the sale process mispricing, it gave no weight to the merger price and based its fair value conclusion entirely on the results of its DCF analysis.

On May 31, 2016, the Chancery Court issued its decision, stating that the fair value of the Dell Inc. common stock at the time of the merger was $17.62 per share, or approximately 28 percent higher than the $13.75 merger price. *Dell* was not unlike many prior decisions where the Chancery Court considered the transaction price as an indication of fair value, but ultimately concluded that the value resulting from a carefully applied DCF analysis provided the best estimate of fair value.

Nearly one month after issuing its decision in Dell, the Chancery Court issued a decision in the matter of *In re Appraisal of DFC Global Corp.* ("*DFC*").[9]

In *DFC*, the Chancery Court decided the fair value of the stock of DFC Global Corporation ("DFC Global"), a company that was acquired by a private equity buyer for $9.50 per share in June 2014.

The petitioners argued that the deal undervalued the DFC Global stock, and at trial, they offered a valuation analyst who estimated the fair value of the stock using the DCF method. Based on this analysis, the analyst concluded a fair value of $17.90 per share.

The respondent's valuation analyst used both a DCF method and a comparable companies analysis, which when blended, resulted in a fair value estimate of $7.94 per share. In addition to offering the opinion of its valuation analyst, the respondent argued that the Chancery Court should consider the $9.50 per share transaction price as the most reliable evidence of fair value.

In reaching its decision, the Chancery Court noted that while it "frequently defers to a transaction price that was the product of an arm's-length process and a robust bidding environment, that price is reliable only when the market conditions leading to the transaction are conducive to achieving a fair price."[10]

The Chancery Court also explained that a DCF method analysis is only as reliable as the underlying financial projections and assumptions used in the analysis. The Chancery Court concluded that the DFC Global transaction was negotiated and closed during a period of significant turmoil and regulatory uncertainly. This turmoil and uncertainty affected the reliability of both the transaction price and the company projections.

Given that, the Chancery Court concluded that neither the DCF-method-derived value nor the transaction price appeared to be a more reliable indication of value than the other in this particular instance.

Recognizing the imperfect nature of the various value indications of the stock, the Chancery Court opted to blend the value indications in arriving at the fair value of the stock. More specifically, the Chancery Court blended:

1. the value indicated by a DCF analysis,
2. the value indicated by the comparable company analysis performed by the respondent's valuation analyst, and
3. the transaction price.

Giving equal weight to each of the three value indications, the Chancery Court concluded that the fair value of the stock was $10.21 per share on the date the transaction closed.

DFC is a recent example of the Chancery Court viewing a fundamental analysis of the stock based on generally accepted valuation methods as relevant evidence in estimating the stock's fair value. While the transaction price was considered in its determination of fair value, it is noteworthy that the Chancery Court placed only a third of the weight on the transaction price in reaching its value conclusion. The concluded fair value of $10.21 per share represented approximately an 8 percent premium over the transaction price.

While the price premium was not as large as the price premium decided in *Dell*, *DFC* demonstrates the Chancery Court willingness to conclude that fair value could exceed the transaction price if, in the Chancery Court's view, the facts of the case supported such a determination.

In May 2017, the Chancery Court decided the matter of *In re Appraisal of PetSmart, Inc.* ("*PetSmart*"). *PetSmart* resulted from a March 2015 go-private transaction in which the public shareholders of PetSmart, Inc., received $83 per share from a private equity acquirer.

At trial, the respondent argued the position that fair value should be based on the price paid by a third-party purchaser in an arm's-length transaction after an allegedly robust pre-signing auction process. In support for its position, the respondent offered a valuation analyst at trial who concluded the fair value of the stock on the date of closing was $83 per share.

In contrast, the petitioners argued that the transaction price was unreliable and fair value should be determined using a DCF analysis. Based on the results of his DCF analysis, the petitioners' valuation analyst concluded that the fair value of the stock at the closing of the transaction was $128.78 per share.

The Chancery Court concluded that the petitioners failed to carry their burden of persuasion that a DCF analysis provided a reliable measure of fair value in this particular case. In support of its decision, the Chancery Court noted that the financial projections used by the petitioner's analyst in his

DCF analysis were, at best, "fanciful" and that there was no basis to conclude that a DCF analysis based on other financial projections would result in a value that was more reliable than the merger price.

The Chancery Court reiterated its long-standing position that if the data inputs used in the DCF analysis are not reliable, then the results of the analysis will likely be unreliable.

In closely evaluating the reliability of the financial projections, the Chancery Court found that the financial projections were not prepared in the ordinary course of business, but rather in conjunction with a sale of the company, and management had "virtually no experience" with long-term projections.

The record indicated that management was under pressure from the board to create aggressive projections because of the expectation that potential bidders would discount the projections. And, while management had experience in preparing short-term projections, it had a history of underperforming these short-term performance targets.

In the course of its analysis, the Chancery Court also concluded that there was no evidence for the conclusion that some other business valuation method may result in a reliable determination of fair value.

In support for its position to rely exclusively on the deal price as the indication of fair value, the Chancery Court revealed that it was satisfied that the process leading to the transaction was reasonably designed and properly implemented to attain the fair value of PetSmart, Inc.

Furthermore, in the Chancery Court's view, the evidence in this case did not reveal any confounding factors that would have caused the large transaction mispricing that was indicated by the petitioner's estimate of fair value. The Chancery

Court concluded that it was satisfied that the deal price of $83 per share "forged in the crucible of objective market reality," was the best indicator of the fair value of the PetSmart, Inc., stock as of the transaction closing date.[12]

Several lessons can be learned from *PetSmart*, not the least of which is that the DCF method will generally not be considered by the Chancery Court in its determination of fair value unless is it based on sound financial projections that are reflective of the company's expected financial performance.

Also, the decision indicates that a robust sale process involving informed and motivated bidders—absent any fundamental valuation of the shares that proves to be more reliable—may be the primary basis for the Chancery Court's determination of fair value.

Four days after the Chancery Court issued its decision in *PetSmart*, the Chancery Court released its decision in the matter of *In re Appraisal of SWS Group Inc.* ("*SWS*").[13]

SWS arose from a January 2015 transaction where SWS Group Inc. was merged with Hilltop Holdings, Inc., for merger consideration of $6.92 per share. At the time of the transaction, SWS Group Inc. was a bank holding company with lines of business in banking and brokerage services.

At trial, the petitioners argued that the sales process was seriously flawed, which made the deal price useless for purposes of determining the fair value of the shares. The respondents also argued that that deal price was not the proper measure of fair value, but only because it included expected post-merger synergies, which should not be included in the determination of statutory fair value.

Given that neither party was arguing that the sales process resulted in a reliable indication of fair value, each party offered a valuation analyst at trial who provided an opinion of fair value.

The valuation analyst for the petitioners prepared a valuation and placed 80 percent of the weight on the conclusion from his DCF analysis and 20 percent of the weight on the conclusion from his comparable companies analysis. The analyst ultimately concluded a fair value of $9.61 per share as of the closing date of the deal. The petitioners argued that their fair value estimate naturally exceeded the transaction price because the transaction price did not properly account for an anticipated financial improvement in the SWS Group Inc. business.

The respondents' valuation analyst based his fair value conclusion entirely on the results of his DCF analysis. In doing so, the analyst concluded that the stock had a fair value of $5.17 per share at the time the merger closed. The analyst's primary explanation for why his concluded value was below the merger price was that the merger price included "shared synergies," which should not be considered in the determination of the fair value for purposes of a statutory appraisal action.

In its decision, the Chancery Court noted that the company was exposed to the market in a sales process. The Chancery Court also reiterated the conclusion it reached in *PetSmart* that "a public sales process that develops market value is often the best evidence of statutory 'fair value' . . ."[14] However, the Chancery Court concluded that in the case of SWS Group Inc., the sale of the business was under conditions that made the sale prices unreliable as evidence of fair value.

In its evaluation of the valuation analyses prepared by the analysts, the Chancery Court concluded that the comparable companies analysis prepared by the petitioners' analyst was unreliable and disregarded it in its determination of fair value. The Chancery Court disregarded the analysis because, in the Chancery Court's view, there was a lack of comparability between SWS Group Inc. and the comparable companies selected by the analyst.

After disregarding the petitioners' comparable companies analysis, the Chancery Court was left with the competing DCF analyses of the two analysts. While considering the various DCF variables within the valuation analysts' analyses, the Chancery Court ultimately constructed its own DCF analysis using what it considered to be the proper inputs. Using it DCF analysis, the Chancery Court concluded that the stock had a fair value of $6.38 per share at the closing of the merger.

In recognizing its concluded value was below the merger price, the Chancery Court noted that the result is "not surprising" because "the record suggested that this was a synergies-driven transaction whereby the acquirer shared value arising from the merger with SWS."[15]

SWS is a recent example of the Chancery Court concluding an estimate of fair value that is below the transaction price when it has reason to believe the transaction price includes the effect of expected post-merger synergies. While the Chancery Court did not discretely identify and quantify the value of these synergies, it made it clear that "when the merger price represents a transfer to the sellers of value arising solely from a merger, these additions to deal price are properly removed from the calculation of fair value."[16]

The Supreme Court Appeals

During 2017, both *Dell* and *DFC* were appealed to the Supreme Court. These long-awaited decisions were released in the last half of 2017.

In August 2017, the Supreme Court rendered its ruling in the *DFC Global Corporation v. Muirfield Value Partners, L.P., et al.* ("*DFC2*") decision. The Supreme Court reversed and remanded the Chancery Court's appraisal decision in *DFC*, which reached a determination of fair value for DFC Global that was $0.71 per share above the transaction price.

The Supreme Court rejected the Chancery Court's decision to give equal weight to the DCF analysis value conclusion, the comparable companies analysis value conclusion, and the deal price in determining fair value.

While the Supreme Court noted that the Chancery Court has discretion to apply various business valuation methods and attribute weight to each value indication, the Supreme Court held that any weighting should be explained in a manner that is supported by the record.

The Supreme Court further stated that, on remand, the Chancery Court should reassess the weight it chooses to afford various factors that are potentially relevant to fair value, and it may conclude that its findings regarding the sales process, when considered in conjunction with other relevant factors, suggest that the deal price was the most reliable indication of fair value.

In summary, the decision suggests that the Chancery Court should give significant weight to the deal price in situations where there is a conflict-free transaction with a robust market check.

Within five months of *DFC2*, the Supreme Court issued its ruling in *Dell Inc. v. Magnetar Global Event Driven Master Fund Ltd.* ("*Dell2*").[17] The Supreme Court rejected the Court's basis for disregarding the transaction price as a measure of fair value, and, instead, relying exclusively on its own DCF analysis.

The Supreme Court held that the Chancery Court erred because its reasons for giving no weight to either the Dell Inc. stock price or the deal price in its determination of fair value did not follow the Court's key factual findings and accepted financial principles.

More specifically, the Supreme Court noted that the Chancery Court gave no weight to the Dell Inc. stock price. This is because it found its market to be inefficient. In contrast, the Supreme Court's review of the record resulted in its conclusion that the market for the Dell Inc. shares was, in fact, efficient and was likely a possible proxy for fair value.

The Supreme Court also highlighted the Chancery Court conclusion that several features of management buyout transactions—similar to the transaction involving Dell Inc.—render deal pricing unreliable for purposes of determining fair value. However, it noted that even the Chancery Court's own findings suggested that such features were generally not present in the Dell Inc. transaction.

Lastly, the Supreme Court held that the Chancery Court decision to disregard market evidence and rely exclusively on the conclusions of its own DCF analysis was based on assumptions that were not grounded in relevant, accepted financial principles.

The Supreme Court held that, on remand, the Chancery Court has discretion to enter judgment regarding the deal price, if it so chooses. However, if the Chancery Court decides to weight a variety of factors in arriving at fair value, it should "explain that weighting based on reasoning that is consistent with the record and with relevant, accepted financial principles."[18]

Further, in its review of the case, the Supreme Court noted that "the record as distilled by the trial court suggests that the deal price deserved heavy, if not dispositive, weight" in the determination of fair value.[19]

2018 Developments

Armed with the Supreme Court recent decisions in *DFC2* and *Dell2*, the Chancery Court issued two significant appraisal-related decisions in early 2018. The first decision was in the matter of *Verition Partners Master Fund Ltd. v. Aruba Networks, Inc.* ("*Aruba*").[20]

Aruba arose from Hewlett-Packard Company's 2015 acquisition of Aruba Networks, Inc., for merger consideration of $24.67 per share.

In determining that $17.13 per share was the fair value of the Aruba Networks, Inc., stock at the time the transaction closed, the Chancery Court relied heavily on the guidance provided by the Supreme Court in *DFC2* and *Dell2*, specifically in the areas of:

1. the market for the target company stock;
2. whether the deal was a third-party, arm's-length transaction; and
3. the treatment of deal synergies.

In terms of the market for the stock, the Chancery Court stated the following: "The Delaware Supreme Court's decisions in *Dell2* and *DFC2* endorse using the market price of a widely traded firm as evidence of fair value. As in *Dell2* and *DFC2*, the market for the Aruba shares exhibited attributes associated with the premises underlying the efficient capital markets hypothesis.

Under *Dell2* and *DFC2*, these attributes provide sufficient evidence of market efficiency to make the Aruba stock price a possible proxy for fair value."[21]

Within its decision, the Chancery Court noted that the Aruba 30-day average unaffected market price was $17.13 per share.

In terms of the whether the deal was a third-party, arm's-length transaction, the Chancery Court stated the following:

> [T]he merger was an arm's-length transaction that provided stockholders with consideration of $24.67 per share. By definition, it provided stockholders with 'fair compensation' in the sense of what would fairly be given to them in an arm's-length transaction. The petitioners proved that the Company's negotiators might have done better, but there is no reason to believe that they left any of Aruba's fundamental value on the bargaining table.
>
> When the merger consideration of $24.67 per share is compared to the unaffected market price of $17.13 per share, it is not possible to say that Aruba's stockholders were exploited. The deal price therefore provides reliable evidence of fair value.[22]

In terms of addressing the presence of possible deal synergies, the Chancery Court stated that both *Dell2* and *DFC2* recognize that a deal price may include synergies and the Supreme Court concluded that fair value could be determined by deducting the deal's synergies from the transaction price. Based on its attempt to exclude synergies from the deal price, the Chancery Court arrived at an adjusted price of $18.20 per share.

In addressing the issue of synergies, the Chancery Court held that a premium paid over the market price of a widely traded company reflects not only the value of anticipated synergies but also the value created by reducing agency costs. The Chancery Court noted that the petitioners are not entitled to share in either of these elements of value because both arise from the accomplishment or the expectation of the transaction.

In the Chancery Court view, the most supportable indications of the stock's fair value were its unaffected market price of $17.13 per share and the "deal price less synergies" value of $18.20 per share. However, in this case, the Chancery Court concluded that the unaffected market price provided the most persuasive evidence of fair value.

In summary, the *Aruba* decision stuck closely to the recurring themes in the prior cases, namely, that an acquirer in a strategic merger may pay more than fair value for a target, and synergies that are incorporated in the deal price should be excluded for purposes of determining fair value.

The decision also suggests that in situations where the transaction provides shareholders "fair compensation for their shares in the sense that it reflects what they deserve to receive based on what would fairly be given to them in an arm's-length transaction,"[23] the unaffected public price of the stock—which excludes the value of any expected synergies arising from the transaction—may provide the best evidence of fair value.

Nearly one week after deciding *Aruba*, the Court decided the matter of *In re Appraisal of AOL Inc.* ("*AOL*").[24] In *AOL*, petitioners filed for appraisal rights in connection with the acquisition of AOL Inc. by Verizon Communications, Inc., at a deal price of $50 per share.

In following the guidance of *Dell2* and *DFC2*, the Chancery Court considered whether the deal price was the best evidence of the fair value of AOL Inc., noting, "Where, however, transaction price represents an unhindered, informed, and competitive market valuation, the trial judge must give particular and serious consideration to the transaction price as evidence of fair value. Where information necessary for participants in the market to make a bid is widely disseminated, and where the terms of the transaction are not structurally prohibitive or unduly limiting to such market participation, the trial court in its determination of fair value must take into consideration the transaction price as set by the market."[25]

Within its opinion, the Chancery Court referred to transactions that are compliant with these conditions as "*Dell* Compliant." Based on the Chancery Court analysis and critique of the AOL Inc. transaction attributes, it concluded that the transaction was not "*Dell* Compliant," and it was unable to use the deal price exclusively as the measurement of fair value.

The valuation analysts for each party at trial agreed that a DCF analysis was the most appropriate valuation method to use in estimating the AOL Inc. fair value. Given that the Chancery Court concluded that it was not appropriate to place any weight on the deal price in determining fair value, it followed the suggestions of both parties and ascribed full weight to the results of a DCF analysis.

Using its own DCF analysis, the Chancery Court found the fair value of the AOL Inc. stock to be $48.70 per share. While using the $50 deal price as a "check" for its concluded fair value of $48.70, the Chancery Court noted that the deal price may not capture the full fair value of the Company, implying that fair value could actually exceed $50 per share.

But in its further explanation for why it concluded that fair value was actually lower than the deal price, the Chancery Court stated that the deal price "may contain synergies that have been shared with the seller in the deal but that are not properly included in fair value."[26]

Even though the Chancery Court relied on a DCF analysis rather than the deal price in its determination of fair value, it is important to emphasize that the Chancery Court ultimately determined a value that was approximately 3 percent below the deal price.

Similar to the other recent cases tried in Delaware, AOL reminds us that the determination of fair value could be lower than the deal price in situations where there is reason to believe that synergistic value was paid for the target company.

On the same day that *AOL* was decided, the Supreme Court affirmed the Chancery Court decision in *SWS* that the fair value of SWS Group Inc. at the time of its acquisition was approximately 8 percent below the deal price.[27]

This recent decision by the Supreme Court essentially confirmed the Chancery Court position in *Aruba* and *AOL* that fair value may be below the deal price in situations where the deal price included the value of post-merger synergies.

Summary and Conclusion

The recent string of Delaware cases from mid-2016 through early 2018 provides a wealth of information on how the Chancery Court and the Supreme Court view fair value in statutory appraisal actions. The guidance provided by these cases indicates the following:

- The deal price may be considered by the Chancery Court in determining fair value in situations where the transaction was at arm's-length and the result of a robust sale process.
- To the extent the deal price includes the value of expected post-merger synergies, the Chancery Court has concluded that the value of these synergies should be excluded from the deal price in determining fair value. The exclusion of the value of these synergies may result in a determination of fair value that is below the deal price.
- The DCF method and other generally accepted business valuation methods may continue to be used by the Chancery Court in its determination of fair value, especially in situations where the Chancery Court is not convinced that the transaction price is a reliable estimate of fair value.

  However, the facts and circumstances of each case will dictate whether fair value, as estimated using a DCF method analysis or any other generally accepted business valuation method, should be above or below the deal price.
- In situations where the Chancery Court decides that neither the deal price nor a valuation of the company using generally accepted business valuation methods provides a reliable estimate of fair value, the Chancery Court may defer to the unaffected trading price of the target company in its determination of fair value.

Notes:

1. Delaware Code Title 8. Corporations § 262(h).
2. Id.
3. In re Appraisal of DFC Global Corp., C.A. No. 10107-CB, 2016 WL 3753123 at *5 (Del. Ch. July 8, 2016).
4. The guideline public company method is occasionally referred to as the comparable company method and the guideline merged and acquired company method is occasionally referred to as the precedent transaction method.
5. In re Appraisal of Dell Inc., C.A. No. 9322-VCL, 2016 WL 3186538 (Del. Ch. May 31, 2016).
6. Id. at 23.
7. Golden Telecom, Inc. v. Glob. GT LP, 11 A.3d 214, 217-18 (Del. 2010).
8. In re Appraisal of Dell Inc., 2016 WL 3186538 at *51.
9. In re Appraisal of DFC Global Corp., 2016 WL 3753123.
10. Id. at *1.
11. In re Appraisal of PetSmart, Inc., C.A. No. 10782-VCS, 2017 WL 2303599 (Del. Ch. May 26, 2017).
12. Id. at *2.
13. In re Appraisal of SWS Group Inc., C.A. No. 10554-VCG, 2017 WL 2334852 (Del. Ch. May 30, 2017).
14. Id. at *1.
15. Id. at *18.
16. Id. at *10.
17. Dell, Inc. v. Magnetar Global Event Driven Master Fund Ltd., 177 A.3d 1 (Del. 2017).
18. Id. at 20.
19. Id. at 14.
20. Verition Partners Master Fund Ltd. v. Aruba Networks, Inc., C.A. No. 11448-VCL, 2018 WL 922139 (Del. Ch. Feb. 15, 2018).
21. Id. at *1.
22. Id. at *2.
23. Id. at *1.
24. In re Appraisal of AOL Inc., C.A. No. 11204-VCG, 2018 WL 1037450 (Del. Ch. Feb. 23, 2018).
25. Id. at *1.
26. Id. at *21.
27. Merlin Partners, LP v. SWS Group Inc., 181 A.3d 153 (Del. 2018).

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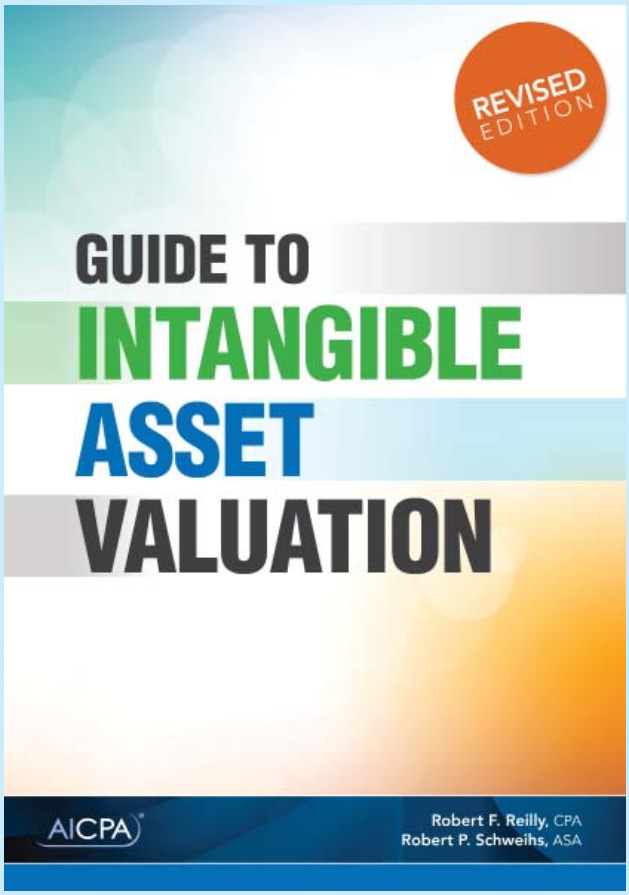
Guide to Intangible Asset Valuation

by Robert F. Reilly and Robert P. Schweihs



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Guide to Intangible Asset Valuation

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Best Practices Discussion

Application of the Cost Approach to Value Internally Developed Computer Software

Connor J. Thurman

In some taxing jurisdictions, the internally developed computer software of a taxpayer company may be exempt from state and local ad valorem property taxation. In these situations, the property tax assessment should not include the value of the taxpayer's internally developed computer software. Let's assume that the taxpayer is the type of company that is subject to property taxation based on the unit principle of property valuation. In that case, the unit value conclusion typically includes the value of all of the taxpayer's tangible property and the value of all of the taxpayer's intangible property. If the taxpayer is located in a jurisdiction that taxes tangible property only, then the taxing authority should adjust the total unit value for the value of any exempt intangible personal property (such as internally generated computer software). This discussion focuses on generally accepted methods that valuation analysts may use to value internally developed computer software for property tax purposes. Specifically, this discussion focuses on the application of the cost approach, and the replacement cost new less depreciation method, to value internally developed computer software.

Introduction

Many taxing jurisdictions tax the value of commercial taxpayer intangible personal property for ad valorem taxation purposes. That is, some taxing jurisdictions tax all of the tangible property and all of the intangible property of commercial taxpayer companies. In these taxing jurisdictions, a taxpayer company's internally developed computer software intangible asset would be subject to state and local ad valorem property taxation.

However, some taxing jurisdictions only tax the tangible property—that is, the real estate and/or tangible personal property—of commercial taxpayers. In these jurisdictions, the value of a taxpayer company's intangible personal property (including internally developed computer software) is exempt from ad valorem property taxation. Commercial taxpayers in these jurisdictions—especially commercial taxpayers subject to the unit principle of property valuation—should ensure that the value of their internally developed computer software is excluded from the value of the total bundle of assets subject to property taxation.

This discussion focuses on the valuation of internally developed computer software as intangible personal property. There are generally accepted cost approach, market approach, and income approach methods that may be used to value internally developed computer software source code. This discussion focuses on the application of the cost approach, and, in particular, the replacement cost new less depreciation ("RCNLD") intangible personal property valuation method.

The RCNLD method is commonly used to value commercial taxpayer internally developed computer software source code and associated documentation and databases.

This discussion (1) describes computer software and (2) presents an overview of the cost approach, RCNLD method. For the valuation of computer software, valuation analysts ("analysts") may use

software development effort estimation models to determine the approximate amount of time required to replace the subject software. In particular, this discussion focuses on the COCOMO model and the SLIM model (defined later in this discussion). This discussion also presents an illustrative example of the application of the cost approach, RCNLD method, to value the taxpayer's internally developed software and associated intangible property.

Definition of Computer Software for Property Tax Purposes

Definition of Computer Software

Computer software is sometimes defined as the programs that tell the computer what to do. The broadest definition is that software includes everything that is not computer hardware. In Revenue Procedure 69-21, the Internal Revenue Service (the "Service") defines software as follows:

> All programs or routines used to cause a computer to perform a desired task or set of tasks and the documentation required to describe and maintain those programs. Computer programs of all classes, for example, operating systems, executive systems, monitors, compilers, and translator assembly routines, and utility programs, as well as application programs are included. "Computer software" does not include procedures which are external to computer operations, such as instructions to transcription operators and external control procedures.[1]

Determining if the Subject Computer Software Is Taxable

The determination of whether computer software is intangible personal property is sometimes the subject of controversy in the property tax discipline.

State taxing authorities have attempted to address this issue. These attempts have resulted in an inconsistent collection of state-specific rules and methods by which analysts and tax advisers contend for guidance in determining what portion (if any) of a taxpayer's computer software assets is taxable and what portion is exempt from property taxation.

When valuing computer software for property tax purposes, it may be important to determine whether the subject software is taxable or tax exempt. Most taxpayer companies own and operate software that has been either:

1. purchased from a seller and optimized for the taxpayer operations or
2. internally developed by the taxpayer information technology ("IT") personnel.

Some states assess property taxes on internally developed computer software. Virginia, for example, specifically defines "computer application software" as taxable intangible personal property.[2]

In general, most states do not tax intangible personal property. Therefore, taxpayer companies take the position that the source code and related documentation of the computer software is intangible personal property and should be exempt from property taxation.

Three general lines of reasoning have been devised by state courts and taxing authorities to determine whether software source code is either tangible personal property or intangible personal property:

1. Whether the taxpayer company purchased a tangible storage medium versus the intangible knowledge contained within
2. Whether the subject computer software is operating (or "operational") software or application software
3. Whether the subject computer software is internally developed or "bundled"

Line of Reasoning One

The first line of reasoning, which we may call the "container test," focuses on a substance-over-form inquiry involving two components:

1. A physical storage medium (e.g., a compact disc, digital versatile disc, or a magnetic tape)
2. The knowledge and/or information contained on the storage medium

Intangible information in this context refers to the digital manifestation of human knowledge in the form of computer code, which instructs a microprocessor to perform computational tasks that alter and communicate this intangible information.

In the early years of computing, taxing authorities sought to characterize software by the tangible medium in which it was stored and distributed. The container test examined:

1. whether the intangible information (that is, the computer code) contained within a tangible medium is a significant factor for property tax purposes and

2. whether the tangible medium may be considered incidental to the purchase of that intangible information.

The container test may be less relevant in the modern computing environment. This is because the use of a tangible storage medium for software distribution has declined, and software source code is directly downloaded to computers or accessed on demand from servers in a cloud network. These methods of software distribution have made many forms of physical distribution unnecessary.

An example of the application of container test occurred in 1996 when the Texas Court of Appeals ruled that computer software was considered intangible property, and, therefore, not subject to ad valorem property taxation.[3]

That court ruled that the computer software was intangible because the "essence of the transaction" was not in the tangible medium that was used to transport the computer software to the consumer (for example a disk or CD-ROM) but rather the computer software that it contained.

"Computer application software," the court reasoned, is considered intangible personal property consisting of unperceivable binary pulses, programs, routines, and symbolic mathematical code that control the function of computer hardware and direct hardware operations; therefore, it was not subject to ad valorem property taxation as tangible personal property.

Line of Reasoning Two

A number of states have emphasized a second line of reasoning that focuses on how separable the computer software is from the computer hardware on which it operates. Some states insist that computer software is essentially inseparable from the tangible hardware on which it operates.

The Ohio Supreme Court, for example, upheld the Ohio Department of Taxation position that all computer software was subject to property taxation under the reasoning that the coded instructions are always stored in some form of physical memory—a tangible medium— when operating in a computer.[4]

Therefore, in Ohio, all internally developed computer software may be subject to ad valorem property taxation.

In other states, the issue of the ability to separate computer software from the computer on which it operates usually takes the form of classifying computer software as either:

1. operating computer software or
2. application computer software.

Operating computer software is generally required in order for the computer to function properly. Sometimes operating computer software is described as "embedded" software or "firmware." This label is based on the fact that the computer software is coded into memory chips attached directly to the circuit board of a computing device.

A laptop computer contains embedded software in the form of a basic input output system ("BIOS"). A BIOS is permanently stored in a memory chip on a computer motherboard (the primary circuit board). It is automatically executed when the computer is turned on.

The BIOS serves as the fundamental operating system ("OS") for managing the microprocessor(s) on the motherboard and the peripheral devices that attach to the motherboard. For a laptop computer, these attached devices may include a hard drive, a video graphics card, a keyboard, and a touchpad.

Depending on the taxing jurisdiction, however, operating software may have a more expansive definition that includes a general-purpose OS that works in conjunction with the BIOS.

The Kansas Department of Revenue describes the distinction between operating software and application software as follows:

> The Kansas Supreme Court has held that software programs are taxable if they are operational programs; programs the computer cannot operate without. These programs are considered an essential portion of the computer hardware and are taxable as tangible personal property in conjunction with the hardware. On the other hand, application programs, which are particularized instructions, are intangible property, which is not subject to taxation in Kansas.[5]

Further, the California State Board of Equalization states as follows:

> In general, software is classified as nontaxable property. The one exception to this general rule is software that is considered a "basic operational program" or "control program." These terms refer to *a computer program that is fundamental and necessary to the functioning of a computer*. All other software (sometimes called *application software*) is nontaxable. But if the application software comes bundled with the computer hardware or other equipment at a single price *and* the taxpayer does not provide the assessor with information that will enable the assessor to separately estimate its value, then the

assessor may consider the total bundled price as indicative of the value of the taxable tangible property.[6]

As a simple illustration, a laptop computer first executes a BIOS when the laptop computer is turned on. In some taxing jurisdictions, this BIOS may be considered tangible personal property that is subject to property taxation. Once the laptop computer has started operating, a user may choose to execute an application such as Microsoft Office.

Microsoft Office may qualify as tax-exempt application software. This is because it executes "on top" of the BIOS and is not required for the computer to operate (the laptop will function normally regardless of whether Microsoft Office is installed). The classification of the Windows OS, which also executes on top of the BIOS, as taxable operating software or as tax-exempt application software may vary by taxing jurisdiction.

This interplay of embedded operational software and general purpose operating systems may lead to complicated tax rules. The operating software/application software dichotomy offers a useful guideline, but it is only a general guideline. Not all operating software is subject to property tax and not all application software is tax exempt.

The analyst should perform sufficient due diligence to determine whether the subject software is subject to property tax or is tax exempt.

Line of Reasoning Three

The third and final line of reasoning classifies computer software as either:

1. computer software that is developed for internal use or
2. computer software that is developed for commercialization (that is, for resale)—"bundled" computer software.

Bundled computer software typically includes computer software that is licensed to others and may be held by the developer as inventory.

Under some state property tax statutes, internally developed software is taxed, while bundled software is not.

An example of bundled software is the Microsoft Office computer software suite. If company ABC purchases Microsoft Office along with a new laptop computer, the value of Microsoft Office ordinarily would not be included in the tax base (let's assume that the taxing jurisdiction exempts bundled computer software), while the value of the laptop computer would be included as tangible property.

This concept is fairly consistent with the operational software/application software dichotomy. The distinction in this line of reasoning becomes more evident if one considers that company ABC may be taxed on its laptop computer software if it instead internally develops an application with word processing and other office productivity features.

Taxability, under the third line of reasoning, depends on the issue of customization, not on whether the software is application software.

In practice, discerning between internally developed software and bundled software may be difficult. It may be difficult to determine taxability of the subject computer software when the analyst considers the many ways in which software can be created, modified, and distributed. If a software developer is tasked to create software for a particular customer's needs that will not be resold to others, it may be considered internally developed software.

However, if the developer creates the software for a chain of franchise businesses and then licenses the software individually to 100 franchisees, some taxing jurisdictions may classify the computer software as having been developed for commercialization. This may be true even though the customers belong to the same franchise chain.

Computer Software Valuation Approaches and Methods

There are three generally accepted intangible personal property valuation approaches. These three generally accepted valuation approaches are summarized below.

1. Cost Approach—The cost approach estimates the value of an intangible personal property as the cost (in terms of current dollar expenditures) required to create an intangible asset with equivalent utility and functionality as the subject asset. Analysts typically consider the following cost components in a cost approach analysis: direct costs, indirect costs, developer's profit, and entrepreneurial incentive.

   If the replacement asset is superior to the subject asset, then allowances may be made for the various forms of obsolescence, including functional (including technological) obsolescence and external (including economic) obsolescence.
2. Market Approach—The market approach estimates the value of an intangible personal property based on valuation pricing multiples derived from arm's-length sale or

license transactions involving either comparable or guideline intangible assets. Typically, individual intangible assets are not bought and sold in fee simple interest. Accordingly, individual intangible asset sale transactional data are not often readily available.

However, many intangible assets (such as trademarks, copyrights, and patents) are licensed in arm's-length transactions. When available, these transactional data may be used to prepare a market approach analysis.

3. Income Approach—The income approach recognizes the prospective revenue, expenses, profitability, and investments associated with the ownership of an intangible personal property. This approach estimates the value of an intangible asset as the present value of future income. That income may be defined as operating income, net income, net cash flow, operating cash flow, or some other measure of income, and it may be estimated over the asset's expected remaining useful life ("RUL").

   This expected income stream is brought to a present value by the use of an appropriate market-derived, risk-adjusted rate of return.

This discussion will focus on the application of the cost approach, and specifically the RCNLD method.

Cost Approach

The cost approach is based on valuing software based on some measure of cost. The common types of cost that may be estimated within the cost approach include the following:

1. The reproduction cost new ("RPCN")
2. The replacement cost new ("RCN")

The RPCN reflects the cost to recreate an exact replica of the subject software. The RPCN refers to the cost to create the functionality or utility of the subject software, in a form that is identical to the subject software.

Functionality refers to the ability of the subject software to perform the task for which it was designed. Utility refers to the ability of the subject software to provide an equivalent amount of satisfaction to the user or beneficiary of the subject software.

The RCN refers to the cost to create the functionality or utility of the subject software, but in a form or appearance that may be quite different from the subject software.

While the replacement software performs the same task as the subject software, the replacement software is often superior (in some way) to the subject software. That is, the replacement software may yield more satisfaction. If this is the case, the analyst may adjust for this factor in an obsolescence estimation.

Adjustments for obsolescence are discussed below.

Two methods that may be used to estimate the RPCN or RCN of computer software are (1) the trended historical cost method and (2) the software engineering development effort estimation model method.

The Trended Historical Cost Method

In this method, actual historical software development costs are identified and quantified. These actual costs are then "trended" through the valuation date by an appropriate inflation-based index factor. The analyst ordinarily may include all costs associated with the development of the subject software.

An allocation of taxpayer company overhead costs and the cost of employee fringe benefits ordinarily may be included in addition to employee payroll costs if the taxpayer personnel are employed in tasks related to the software development.

Historical costs ordinarily may include an allowance for the software developer's profit on the software development project, an allowance for entrepreneurial incentive to motivate the software development project, all direct development costs such as salaries and wages, and all indirect development costs, such as taxpayer company overhead and employment taxes/employee benefits.

The application of the trended historical cost method typically estimates the RPCN of the subject software. In many cases, due to technological advances in programming languages or programming tools, for example, the RCN for the subject software may be lower than the RPCN for the subject software.

Software Engineering Development Effort Estimation Models

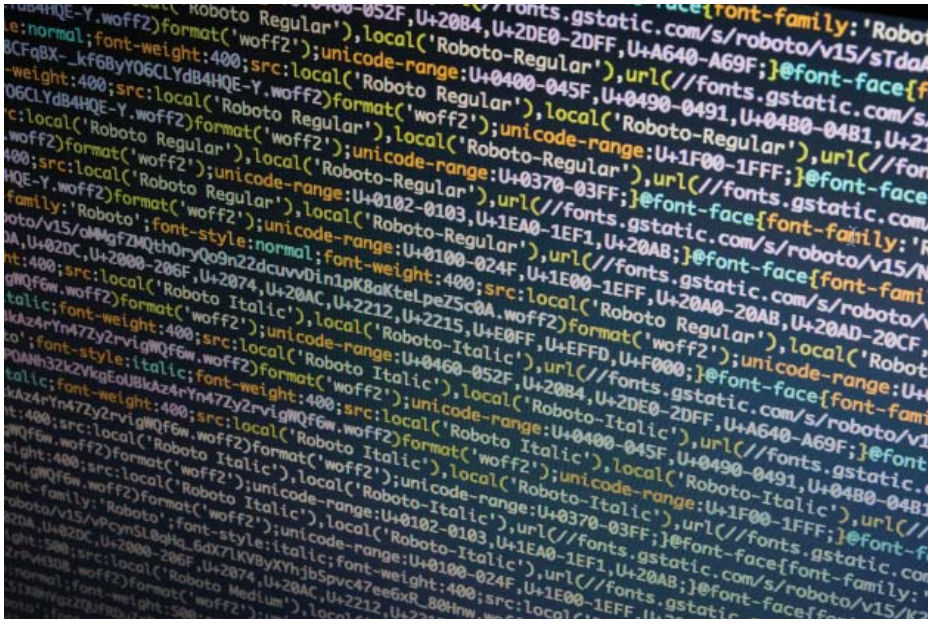
The analyst may employ software engineering development effort estimation models in order to estimate either the RPCN or the RCN of the taxpayer internally developed software. Generally, software engineering development effort measurement models were originally developed to assist software developers in estimating the effort, time, and human resources needed to complete a software project.

These models have been adapted by analysts for internally developed software valuation purposes.

The primary input to the software engineering cost estimation models is a size-related metric. Capers Jones, an authority in the field of software cost estimation, observed: "Every form of estimation and every commercial software cost-estimating tool needs the sizes of key deliverables in order to complete an estimate."[7]

Jones lists six types of sizing:

1. Sizing based on lines of code
2. Sizing by extrapolation from function point analysis
3. Sizing by analogy with similar products of known size
4. Guessing at the size using "project manager's intuition"
5. Guessing at the size using "programmer's intuition"
6. Sizing using statistical methods or Monte Carlo simulation[8]



Historically, the most common sizing metric has been the number of software program lines of code. The definition of a line of code and the associated line of code counting conventions vary among the common software engineering development effort estimation models.

A common definition of a line of code is as source code instructions (i.e., instructions as written by human programmers) or object code instructions (what the computer produces after it has compiled, or translated, the source code into instructions the computer can more directly process).

Lines of code have meaning only within the context of the computer language being employed. Languages have evolved over time and can be classified into generations. As a general observation, higher-generation languages (i.e., more modern programming languages) require less source code to perform the same tasks than lower-generation languages.

The valuation of internally developed software can also be developed using different base size units than source lines of code. Examples of these include both function points and object points.

Two common software engineering development effort estimation models are the following:

1. The Constructive Cost Model ("COCOMO") and its derivatives
2. The Software Lifecycle Management ("SLIM") model

These software engineering development effort estimation models are considered "algorithmic" models because they generate effort estimates using a set of quantified inputs, such as lines of source code, which is processed automatically in accordance with metrics and formulas derived from the empirical analysis of large databases of actual software projects.

Typically, the software engineering development effort estimation models calculate an estimate of the effort required to develop a software system in terms of person-months. The number of person-months is multiplied by a blended cost per person-month to arrive at the indicated value of the software.

The blended cost per person-month is typically a full absorption cost (e.g., the cost of a software programmer would include benefits, wages, applicable overhead, etc.).

Additional software engineering development effort estimation models include (1) the KnowledgePlan ("KPLAN") model and (2) the SEER for Software ("SEER-SEM") model.

KPLAN

KPLAN is a proprietary function point-driven model that incorporates a historical knowledge database of project data derived from over 11,000 computer software projects that have been collected and researched by Software Productivity Research, LLC ("SPR").

The specific algorithms utilized by KPLAN have not been fully disclosed. The model uses functional

metrics to derive predictive/analytical productivity rates given a significant number of known (or assumed) parameters. Projects are classified by, among other things, scope (e.g., program or application, subsystem), topology (e.g., stand alone, client/server), class (e.g., end-user developed, IT developed), and type (e.g., interactive graphical user interface, multimedia).

The size of the software system can be expressed in multiple ways, including function points or lines of code, by language. The analyst assigns attribute values that describe the personnel, technology, process, environment, and product.

KPLAN was updated in 2011 with the release of version 4.4. However, SPR ceased support for the software engineering development effort estimation model. The model is still available for download from various software archive websites.

SEER-SEM

SEER-SEM is an algorithmic project management tool designed to estimate, plan, and monitor the estimated effort and resources necessary for computer software development/maintenance projects. SEER-SEM is actually a group of models working in concert to provide estimates of effort, duration, staffing, and defects.

The following is a list of the specific SEER-SEM models and the questions they address:

1. Sizing (how large is the project?)
2. Technology (how productive are the developers?)
3. Effort and Schedule Calculation (what amount of effort and time is needed?)
4. Constrained Effort/Schedule Calculation (how does the expected outcome change with constraints?)
5. Activity and Labor Allocation (how should tasks and labor be allocated?)
6. Cost Calculation (given effort, duration, and labor, how much will the project cost?)
7. Defect Calculation (what is the expected quality of the delivered computer software?)
8. Maintenance Effort Calculation (how much maintenance will be required?)
9. Progress (how is the project progressing and is it on track to target completion?)
10. Validity (is the project feasible based on the technology involved?)

The current version of SEER-SEM (version 7.3) is the first version of the model to incorporate all stages of the project estimate's life cycle. The model relies on parametric modeling that also utilizes a database of over 20,000 historical software projects to estimate required project effort and resources.

This discussion focuses on the application of the COCOMO model and the SLIM model.

COCOMO

The first generation of COCOMO was developed in the 1980s. COCOMO was developed by Barry W. Boehm, PhD, and is described in *Software Engineering Economics*.[9]

This development effort estimation model projects the amount of effort required to develop the software, taking into consideration the size of the programs, the program characteristics, and the environment in which they are to be developed.

Boehm defined an effort equation in the basic COCOMO model that estimates the number of person-months to develop a software product as a function of delivered source instructions. This person-month estimate includes all phases of the development from product design through integration and testing, including documentation.

Delivered source instructions include job control language, format statements, and data definitions. These delivered source instructions do not include comments. The basic COCOMO model allows for three different software development modes, with a specific effort equation provided for each development mode.

Boehm also introduced the intermediate COCOMO model, which refined the basic COCOMO model by introducing 15 cost drivers with associated effort multipliers. The product of these multipliers is defined as the effort adjustment factor.

The intermediate COCOMO model modified the three effort equations of the basic COCOMO model by:

1. adjusting the coefficients in the equations and
2. including the effort adjustment factor as a variable in the equations.

A more updated model, COCOMO II, was developed by researchers at the University of Southern California ("USC").[10]

The updated model supports the effort estimation of a variety of third and fourth generation language-based projects. It also incorporates function point analysis as well as adds two new effort drivers. An online estimation tool encompassing the COCOMO II model is available through the USC Center for Systems and Software engineering website.[11]

COCOMO II actually consists of three separate models. The most recent and detailed of the three models is the COCOMO II.2000 post-architecture model.

The post-architecture model allows for increased effort due to breakage (i.e., code thrown away due to volatility in project requirements) and for automatically translated and adapted lines of code.

We will provide an illustrative example of a cost approach valuation analysis using COCOMO II later in this discussion.

The post-architecture software development equation defined by the COCOMO II model is as follows:

$$PM = A \times (KNSLOC)^{E} \times \Pi\ EM$$

where:

PM = Person-months of estimated effort

A = 2.94, the effort coefficient

KNSLOC = Thousands of new source lines of code

E = The scaling exponent for effort, a function of the scale factors

Π EM = The product of the 17 effort multipliers associated with the cost drivers

The scaling exponent E is calculated as follows:

$$E = B + (0.01 \times \Sigma\ SF)$$

where:

B = 0.91, the scaling base-exponent for effort

Σ SF = The sum of the five scale factors

A third model, COCOMO III, is currently being developed by USC and its project partners with the aim of improving the model with new and updated software cost drivers and new development paradigms.

SLIM

The SLIM software engineering development effort model was developed by Lawrence Putnam, the founder of Quantitative Software Management, Inc. ("QSM"). QSM licenses various software development effort estimation tools incorporating the model.

The SLIM model (also referred to by commentators and in academic literature as the "Putnam model") estimates the amount of effort in person-months required to develop software based on the following parameters:

1. A project size build-up parameter (a number representing a range from entirely new software to rebuilt software)
2. The software delivery time
3. The effort required to create the computer software
4. The expected rate of defective software
5. A productivity environment factor

The SLIM model utilizes a knowledge base of project data derived from over 13,000 software projects that have been collected and researched by QSM. The SLIM model is regularly updated in order to provide accurate estimates as technology improves.

The SLIM model allows users to specify the given computer software project's environment by identifying the industry function for which that computer software will be used. The SLIM model utilizes a primary trend group to benchmark the subject software against the QSM industry database and compares software development projects.

The QSM primary trend groups include (1) all systems, (2) microcode and firmware, (3) real time, (4) system software, (5) command and control, (6) telecommunications, (7) scientific, (8) process control, (9) business, (10) real time, (11) engineering, (12) business agile, (13) business financial, (14) business government, (15) business web, and (16) package implementation.

The SLIM model also allows users to alter their software development estimates based on various sizing units. The base size unit is source lines of code.

This discussion presents an illustrative development effort estimation analysis output using the SLIM model below.

Source Lines of Code Adjustments

As discussed previously, the software engineering development effort estimation model method often relies on an input of source lines of code to determine the amount of effort needed to replace the internally developed software. The analyst may need to make adjustments to company-provided source lines of code.

These adjustments may include (1) removing copybook lines of code, (2) determining any differences between "actual" and "ideal" source lines of code, and (3) adjusting physical source lines of code to reflect logical executable lines of source code.

Copybook Lines of Code

In an effort to reduce the amount of time to write large quantities of code, software developers may use copybooks as a way to limit the amount of duplicate code that needs to be written for a particular

program. Copybooks may be written once and then copied into the source lines of code for multiple programs.

If the analyst included all copybooks found in any internally developed software, the number of source lines of code may be overstated.

The analyst may make an effort to determine how many copybook lines of code are original (i.e., written) and how many copybook lines of code are duplicative (i.e., copied). The analyst may reduce the source lines of code to include only the originally written copybook lines of code.

Actual and Ideal Source Lines of Code

The analyst may encounter internally developed software that would not be written in the same language if replaced or may simply be written more efficiently if replaced. These cases may be classified as "actual" and "ideal" lines of code.

The adjustment for differences between "actual" and "ideal" source lines of code may be a result of individual software developer style or differences in the programming language used.

When performing an RCN analysis, the analyst may determine which, if any, programs would be written in a higher-generation language (which tends to be more efficient and requires less written code) and whether or not those programs would be replaced using fewer source lines of code.

Physical Executable to Logical Executable Source Lines of Code

The specific line of code size measure used by both COCOMO II and SLIM is logical executable lines of code. In order to define logical executable lines of code, the following paragraphs explain:

1. the difference between logical and physical lines of code and
2. the difference between executable and nonexecutable lines of code.

A physical line of code may be thought of as:

1. one line as typed by a programmer (i.e., before deliberately beginning a new line) or
2. one printed line on a program listing.

A logical line of code can be thought of as one logical program instruction. Many programming languages allow the programmer to spread one logical program instruction over two or more physical lines.

Some programming languages allow the programmer to place two or more logical program instructions on the same physical line. Therefore, the number of logical lines of code in a program is generally less than the number of physical lines of code in that program.

Executable lines of code are those lines of code that are ultimately executed when the program is run (though the source lines of code will first be converted to machine code). Examples of nonexecutable lines of code are comment lines and blank lines. In other words, the program would run in the same manner regardless of the number of comment lines and blank lines.

The use of logical executable lines of code reduces the effect of programmer style on the number of source lines of code, focusing instead on the functionality of the source lines of code.

If necessary, the analyst may adjust physical lines of code to reflect logical executable lines of code.

Obsolescence Adjustments

When valuing internally developed software for property tax purposes, the analyst should make any necessary adjustments for all forms of obsolescence. Adjustments are made to the various cost estimate in order to account for losses in value resulting from:

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

These three types of property obsolescence are summarized below:

1. Physical deterioration is a loss in value of the taxpayer operating assets brought about by wear and tear, action of the elements, disintegration, use in service, and all physical factors that may reduce life and serviceability.
2. Functional obsolescence is the loss in value of the taxpayer operating assets caused by the inability of the subject property to adequately perform the function for which it is utilized. Functional obsolescence is, therefore, internal to the subject property. Functional obsolescence is often related to such factors as property superadequacies, excess property operating costs, and property inadequacies.
3. External obsolescence is a loss in value of the taxpayer operating assets caused by external forces, such as changes in the supply/demand relationship, legislative

enactments, and other external factors. Those other external factors may include industry and local economic conditions that affect the value of the subject property.

In the valuation of internally developed software, all forms of obsolescence may be considered. Functional obsolescence may not be evident in taxpayer software that is properly maintained. However, the analyst may consider the extent of any functional obsolescence.

When a reproduction cost new method, such as the trended historical cost method, is used to value software, technological obsolescence can be significant. This factor is due to increasing productivity and technological advances over time.

The use of a replacement cost new method typically eliminates the productivity-related technological obsolescence. However, other adjustments for technological obsolescence may be necessary. Economic obsolescence usually has more relevance with respect to product software. However, this form of obsolescence may be examined in the valuation of operational software as well.

Although the value of tangible personal property is often estimated using depreciation schedules, properly maintained computer software does not become obsolete in any predictable, continuous way.

Software value tends to vary over time by a relatively small amount due to (1) increasing productivity/technological advances, on the one hand, and (2) increasing labor costs and software enhancements, on the other hand, until the (usually unpredictable) point in time that its replacement is contemplated, for any number of reasons.

Therefore, any attempt to estimate obsolescence for properly maintained software by "depreciating" it over some finite time period may be unsupportable.

Remaining Useful Life Analysis

The estimation of the RUL may be an important consideration in each of the three generally accepted approaches to software valuation. In the cost approach, an RUL analysis may be performed in order to estimate the total amount of obsolescence, if any, from the estimated measure of cost—that is, either reproduction cost, replacement cost, or trended historical cost.

The analyst's assessment of RUL may have a measurable effect on the value of the software. Normally, a longer RUL would indicate a higher value for the subject taxpayer software. And, a shorter RUL would indicate a lower value for the subject taxpayer software.

Cost per Person-Time

The cost per person-time (where time is measured in hours, months, or years) is a full absorption cost. That cost includes the average base salary of the software development team and other factors. These other factors include, but are not limited to, perquisites, payroll taxes, employee benefits (life, health, disability, and dental insurance, pension plans, and continuing education), and an allocation of overhead (which includes secretarial support, office space, computer use, supplies, marketing, management, and supervisory time).

The analyst may gather information regarding the number of software development employees, their job grades or level, as well as job titles within the IT department, and the average salary by job title. The analyst may also require data regarding the various overhead factors, such as retirement plans, medical and life insurance, company pension plan contribution, and salary incentives and bonuses.

The analyst may also have to make necessary adjustments for (1) developer's profit and (2) entrepreneurial incentive into the full absorption cost estimate. A discussion of these adjustments follows.

Developer's Profit

Developer's profit is the expected return an intangible asset developer expects to receive over the direct and indirect costs (including materials, labor, and overhead) related to the asset development.[12] The analyst may estimate the developer's profit as a percentage return on the taxpayer's investment in direct and indirect costs to replace the internally developed software systems.

The analyst may utilize selected guideline publicly traded companies in the computer programming services industry to identify a reasonable developer's profit. One method of analysis is to compare the operating profit margins of a selection of guideline publicly traded companies.

Since the operating profit margin is based on a return on sales and the developer's profit is based on the cost of development, the analyst may convert the selected operating profit margin to a developer's profit margin using the following formula:

Operating profit margin
÷ (1 – Operating profit margin)
= Developer's profit margin

The developer's profit margin that is the result of this formula is a percentage that is applied to the direct and indirect cost of development to calculate the total direct cost, indirect cost, and developer's profit. An example of this calculation follows.

Operating profit that is 7.7 percent greater than the total cost of development is mathematically equivalent to a profit margin of 7.1 percent (minor differences are due to rounding). If a developer incurred total direct and indirect development costs of $100.00, the developer would require income of $107.70 (i.e., $7.70 of profit) to achieve an operating profit margin of 7.1 percent.

In this example, the operating profit margin is calculated as $7.70 of profit divided by $107.70 of total income.

Entrepreneurial Incentive

The analyst may also estimate an entrepreneurial incentive cost component by considering the following:

1. A rate of return, as indicated by the taxpayer management
2. The estimate of the amount of time required to replace the subject internally developed software, as indicated by the subject taxpayer management
3. The sum of the estimated software developer's profit and direct and indirect replacement costs incurred during the estimated time required to replace the internally developed computer software

The entrepreneurial incentive considers management estimates of the time required to replace the subject internally developed software.

Illustrative Software Valuation Example

Let's assume that Omega Gas Transmission Company ("Omega") is an intrastate natural gas pipeline company. Omega is assessed in its taxing jurisdiction based on the unit principle of property valuation.

Let's assume that the assessor values the Omega total unit of operating property at $100 million as of January 1, 2018.

Let's assume that intangible personal property is exempt from property taxation in the subject taxing jurisdiction. Omega owns internally developed computer software that is used to operate its compressor stations and its pipeline operations.

Omega retained an analyst to estimate the value of this internally developed software so that the taxpayer can remove the value of that intangible personal property from the total unit value.

The analyst decided to use the cost approach and the RCNLD method to estimate the value of the Omega subject software as of January 1, 2018.

To simplify this illustrative example, let's assume that computer software is the only intangible personal property that is owned and operated by Omega as of January 1, 2018.

Summary of Exhibits

Exhibit 1 presents the summary of the RCNLD value indications using several software engineering development effort estimation models.

Exhibit 2 presents the full absorption cost per person-month used in the valuation of the Omega computer software. This analysis includes associated direct and indirect costs, as well as the selected developer's profit and entrepreneurial incentive applicable to the Omega software development personnel.

Exhibit 3 presents the effort multiplier and scaling exponent factors used in the COCOMO II software development effort estimation formula.

Exhibit 4 presents the cost driver ratings and associated effort multipliers and scaling exponent factors attributable to the subject taxpayer software programs.

Exhibit 5 presents the application of the COCOMO II model in determining the person-months required to replace the subject software.

Exhibit 6 presents the application of the SLIM model in determining the person-months required to replace the subject taxpayer software.

Cost Approach—Replacement Cost New less Depreciation Method

The simplified process of how the analyst performs the valuation of the Omega software is as follows:

1. The analyst is provided the COCOMO variables that correspond to each software program in the subject Omega software, as presented in Exhibit 4.
2. The analyst matches the provided COCOMO variables for each software program to the values in the COCOMO equation, as presented in Exhibit 3.
3. The analyst is provided with the SLIM primary trend group for each software program

Exhibit 1
Omega Gas Transmission Company
Internally Developed Computer Software
Cost Approach
Replacement Cost New less Depreciation Method
Valuation Summary
As of January 1, 2018

Replacement Cost New less Depreciation Development Effort Component	Exhibit Reference	Replacement Cost New less Depreciation Component	
COCOMO Model Person-Month Development Effort Estimate (net of obsolescence) [a]	5	2,487	Months
SLIM Model Person-Month Development Effort Estimate (net of obsolescence) [a]	6	1,128	Months
Selected Subject Software Person-Month Development Effort Estimate [b]		1,807	Months
Subject Software Person-Month Development Effort Estimate		1,807	
Full Absorption Cost per Person-Month	2	$ 12,700	
Subject Software Replacement Cost New less Depreciation Indication		$ 22,954,945	
Subject Software Value (rounded)		**$ 23,000,000**	

[a] For purposes of this simplified illustrative example, economic obsolescence is assumed to be 0 percent.
[b] Average of COCOMO indicated person-months and SLIM indicated person-months.
Sources: As indicated above.

in the subject Omega software, as presented in Exhibit 6.

4. The analyst is provided with logical executable source lines of code for the subject software, as presented in Exhibits 5 and 6.
5. The analyst inputs the indicated effort multiplier and scaling exponent, and the provided logical executable lines of source code into the COCOMO II post-architecture equation to determine the person-months to replace each software program, as presented in Exhibit 5.
6. The analyst inputs the logical executable source lines of code for each of the software programs into the SLIM model to determine the person-months to replace the program, as presented in Exhibit 6.
7. The analyst makes an adjustment for the obsolescence to any software programs that are scheduled to be retired, as presented in Exhibits 5 and 6. The functional obsolescence adjustment is based on the expected retirement date and the RUL of the software program.
8. To simplify this illustrative example, let's assume that there is no economic obsolescence related to the Omega total unit of operating property. Therefore, the analyst does not have to apply any economic obsolescence adjustment to the cost approach valuation of the software intangible personal property.
9. The analyst estimates the subject computer software person-month development effort based on the average of the RCNLD development effort in person-months indications from the two software engineering development effort estimation models: COCOCO II and SLIM, as presented in Exhibit 1.
10. The analyst is provided with the head count and associated costs related to the Omega software development personnel, as presented in Exhibit 2.
11. The analyst applies a 5 percent developer's profit and a 12 percent entrepreneurial incentive to reflect the profit motive and opportunity cost associated with developing the subject Omega software, as presented in Exhibit 2.
12. The analyst calculates the full absorption cost per person-month, as presented in Exhibit 2.
13. The analyst multiplies the full absorption cost and the average development effort in person-months (estimated using the software engineering development effort

Exhibit 2
Omega Gas Transmission Company
Internally Developed Computer Software
Cost Approach
Replacement Cost New less Depreciation Method
Software Development Personnel
Full Absorption Cost per Person-Month
As of January 1, 2018

Software Development Actual Cost Components	Software Development Personnel
Actual Headcount:	132
Actual Costs:	
Salaries	10,500,000
Employee Benefits	2,625,000
Bonuses	525,000
Overhead	3,412,500
Total Actual Annual Cost	17,062,500
Monthly Cost per Person:	
Total Actual Annual Cost	17,062,500
Divided by: Headcount	132
Annual Cost per Person	129,261
Divided by: 12 Months	12
Direct and Indirect Cost per Person-Month	10,772
Computer Software Developer's Profit [a]	5%
Direct Cost, Indirect Cost, and Developer's Profit per Person-Month	11,310
Direct Cost, Indirect Cost, and Developer's Profit Cost per Person-Month	11,310
Entrepreneurial Incentive as a Percent of Direct Cost, Indirect Cost, and Developer's Profit [a]	12%
Full Absorption Cost per Person-Month	12,668
Full Absorption Cost per Person-Month (rounded)	12,700

[a] Determined by the analyst (details not presented).
Source: Taxpayer-provided costs and headcount and analyst calculations.

estimation models) to arrive at the RCNLD of the subject Omega software, as presented in Exhibit 1.

As presented in Exhibit 1, the analyst concludes that, based on the estimated effort, the value of the Omega internally developed software, as of the valuation date, is $23 million (rounded).

Effect on the Property Tax Assessment

The value of the Omega total unit of operating property—that is, tangible property and intangible property—was estimated as $100 million. However, this total unit value included the value of the subject software intangible personal property.

As presented in Exhibit 1, the value of the subject software was $23 million as of the valuation date. Subtracting the value of the subject software intangible personal property yields a value of $77 million ($100 million total unit value less $23 million intangible personal property) in order to conclude the $77 million value of the Omega taxable tangible property as of January 1, 2018.

Therefore, the software valuation analysis resulted in properly reducing the Omega property tax assessment by more than 20 percent.

Notes:

1. Rev. Proc. 69-21, 1969-2 C.B. 303.
2. Rulings of the Tax Commissioner, Virginia Department of Taxation, Document 13-47, (April 4, 2013).

3. See Dallas Cent. Appraisal Dist. v. Tech Data, 930 S.W.2d 119 (Tex. App. 1996).
4. See Andrew Jergens Company v. Tax Commr., 848 N.E.2d 499 (Ohio 2006).
5. See https://law.justia.com/cases/kansas/supreme-court/1986/58-619-1.html.
6. See https://www.boe.ca.gov/proptaxes/embedded_software.htm.
7. Capers Jones, *Estimating Software Costs: Bringing Realism to Estimating*, 2nd ed. (New York: McGraw-Hill, 2007), 8.
8. Ibid., 9.
9. For a detailed description of COCOMO, see Barry W. Boehm, *Software Engineering Economics* (New York: Prentice-Hall, 1981).
10. For a detailed description of COCOMO II, see Boehm et al., *Software Cost Estimation with COCOMO II* (New York: Prentice-Hall PTR, 2000).
11. See http://sunset.usc.edu/csse/research/COCOMOII/cocomo_main.html.
12. Robert F. Reilly and Robert P. Schweihs, *Guide to Intangible Asset Valuation* (New York: American Institute of Certified Public Accountants, 2013), 229.

Sources not listed in footnotes:

John E. Elmore, "The Valuation of Computer Software in the Health Care Industry," Willamette Management Associates *Insights* (Summer 2016).

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Exhibit 3
Omega Gas Transmission Company
Internally Developed Computer Software
Cost Approach
Replacement Cost New less Depreciation Method
COCOMO II.2000 Variables
As of January 1, 2018

Effort Multipliers	Very Low	Low	Nominal	High	Very High	Extra High
	VL	L	N	H	VH	EH
RELY	0.82	0.92	1.00	1.10	1.26	
DATA		0.90	1.00	1.14	1.28	
CPLX - Control	0.73	0.87	1.00	1.17	1.34	1.74
CPLX - Computations	0.73	0.87	1.00	1.17	1.34	1.74
CPLX - Device	0.73	0.87	1.00	1.17	1.34	1.74
CPLX - Data	0.73	0.87	1.00	1.17	1.34	1.74
CPLX - User	0.73	0.87	1.00	1.17	1.34	1.74
RUSE		0.95	1.00	1.07	1.15	1.24
DOCU	0.81	0.91	1.00	1.11	1.23	
TIME			1.00	1.11	1.29	1.63
STOR			1.00	1.05	1.17	1.46
PVOL		0.87	1.00	1.15	1.30	
ACAP	1.42	1.19	1.00	0.85	0.71	
PCAP	1.34	1.15	1.00	0.88	0.76	
PCON	1.29	1.12	1.00	0.90	0.81	
AEXP	1.22	1.10	1.00	0.88	0.81	
PEXP	1.19	1.09	1.00	0.91	0.85	
LTEX	1.20	1.09	1.00	0.91	0.84	
TOOL	1.17	1.09	1.00	0.90	0.78	
SITE - Collocation	1.22	1.09	1.00	0.93	0.86	0.80
SITE - Communications	1.22	1.09	1.00	0.93	0.86	0.80
SCED	1.43	1.14	1.00	1.00	1.00	

Scaling Factors:

	VL	L	N	H	VH	EH
PREC	6.20	4.96	3.72	2.48	1.24	0.00
FLEX	5.07	4.05	3.04	2.03	1.01	0.00
RESL	7.07	5.65	4.24	2.83	1.41	0.00
TEAM	5.48	4.38	3.29	2.19	1.10	0.00
PMAT	7.80	6.24	4.68	3.12	1.56	0.00

Exhibit 4
Omega Gas Transmission Company
Internally Developed Computer Software
Cost Approach
Replacement Cost New less Depreciation Method
COCOMO II.2000 Effort Multipliers and Scaling Exponents
As of January 1, 2018

		Computer Software Programs					
		Program 1		**Program 2**		**Program 3**	
	Software Development Cost Drivers	Rating [a]	Effort Multiplier	Rating [a]	Effort Multiplier	Rating [a]	Effort Multiplier
PRODUCT FACTORS							
RELY	Required System Reliability	L	0.92	N	1.00	H	1.10
DATA	Data Base Size	N	1.00	N	1.00	N	1.00
CPLX	Software System Complexity		0.89		0.92		0.92
	Complexity - Control Operations	N 1.00		L 0.87		VL 0.73	
	Complexity - Computational Operations	VL 0.73		L 0.87		N 1.00	
	Complexity - Device-Dependent Operation	N 1.00		N 1.00		L 0.87	
	Complexity - Data Management Operations	N 1.00		N 1.00		N 1.00	
	Complexity - User Interface	VL 0.73		L 0.87		N 1.00	
RUSE	Required Reusability	N	1.00	N	1.00	N	1.00
DOCU	Documentation Match to Life-Cycle Needs	N	1.00	VL	0.81	N	1.00
COMPUTER FACTORS							
TIME	Execution Time Constraint	N	1.00	N	1.00	N	1.00
STOR	Main Storage Constraint	N	1.00	N	1.00	N	1.00
PVOL	Platform Volatility	L	0.87	N	1.00	L	0.87
PERSONNEL FACTORS							
ACAP	Analyst Capability	N	1.00	VH	0.71	N	1.00
PCAP	Programmer Capability	VH	0.76	H	0.88	H	0.88
PCON	Personnel Continuity	N	1.00	N	1.00	VH	0.81
AEXP	Applications Experience	VH	0.81	H	0.88	H	0.88
PEXP	Platform Experience	H	0.91	N	1.00	H	0.91
LTEX	Language and Tool Experience	N	1.00	N	1.00	N	1.00
PROJECT FACTORS							
TOOL	Use of Software Tools	VH	0.78	N	1.00	N	1.00
SITE	Multisite Development		0.80		1.00		1.11
	Site Collocation	EH 0.80		N 1.00		N 1.00	
	Communications Support	EH 0.80		N 1.00		VL 1.22	
SCED	Required Development Schedule	H	1.00	N	1.00	N	1.00
	Product of the Effort Multipliers		0.25		0.41		0.56

	Scale Drivers	Rating	Scale Factor	Rating	Scale Factor	Rating	Scale Factor
SCALE FACTORS							
PREC	Precedentedness	H	2.48	VH	1.24	N	3.72
FLEX	Development Flexibility	H	2.03	N	3.04	H	2.03
RESL	Architecture/Risk Resolution	H	2.83	N	4.24	N	4.24
TEAM	Team Cohesion	N	3.29	N	3.29	L	4.38
PMAT	Process Maturity	N	4.68	N	4.68	N	4.68
	Sum of the Scale Factors		15.31		16.49		19.05
	Scaling Exponent		1.0631		1.0749		1.1005

[a] Provided by Omega software development personnel.

Exhibit 5
Omega Gas Transmission Company
Internally Developed Computer Software
Cost Approach
Replacement Cost New less Depreciation Method
Development Effort—COCOMO II Model
As of January 1, 2018

Software Application	Logical Executable Source Lines of Code [a]	Effort Multiplier [b]	Scaling Exponent [b]	Replacement Cost New Development Effort in Person-Months	Functional Obsolescence Adjustment [c]	Functional Obsolescence in Person-Months	Replacement Cost New less Depreciation Development Effort in Person-Months
Program 1	625,000	0.25	1.0631	690	0%	-	690
Program 2	485,000	0.41	1.0749	929	20%	186	743
Program 3	355,000	0.56	1.1005	1,055	0%	-	1,055
	1,465,000			2,673		186	2,487

[a] Omega management provided the logical executable source lines of code for the subject software.
[b] As presented in Exhibit 3.
[c] A 20 percent obsolescence adjustment was applied for program 2 based on eight years remaining of a 10 year RUL of the program, as indicated by Omega IT personnel

Exhibit 6
Omega Gas Transmission Company
Internally Developed Computer Software
Cost Approach
Replacement Cost New less Depreciation Method
Development Effort—SLIM Estimate Model
As of January 1, 2018

Software Application	Primary Trend Group [a]	Logical Executable Source Lines of Code [b]	Replacement Cost New Development Effort in Person-Months [c]	Functional Obsolescence Adjustment [d]	Functional Obsolescence in Person-Months	Replacement Cost New less Depreciation Development Effort in Person-Months
Program 1	Business	625,000	482	0%	-	482
Program 2	Business	485,000	402	20%	80.4	322
Program 3	Business	355,000	324	0%	-	324
		1,465,000	1,208		80	1,128

[a] Based on the planned use and function of the subject software programs.
[b] Omega management provided the logical executable source lines of code for the subject software.
[c] Derived by the analyst using the SLIM software engineering cost estimation model (details not presented).
[d] A 20 percent obsolescence adjustment was applied for program 2 based on eight years remaining of a 10 year RUL of the program, as indicated by Omega IT personnel

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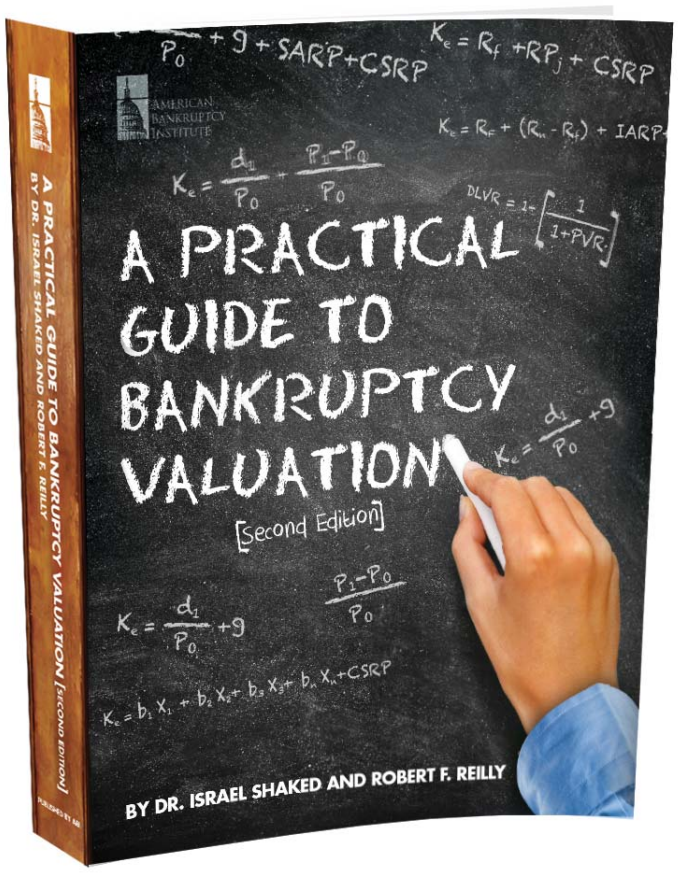

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A PRACTICAL GUIDE TO BANKRUPTCY VALUATION

Dr. Israel Shaked and Robert F. Reilly

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Willamette Management Associates

Guidance for Applying the Relief from Royalty Method to Value Trademarks and Trade Names

Justin M. Nielsen

Intellectual property is intangible personal property that enjoys special legal recognition and protection, typically as a result of specific statutory authority (either federal or state). One of the four types of intellectual property, trademarks and trade names, provides explicit protections for brands, slogans, and other similar intangible personal property. As trademarks and trade names can represent a valuable type of intellectual property owned by a business, it is important for the valuation analyst to understand how to estimate an appropriate royalty rate to be used in the valuation analysis of trademarks and trade names when applying the market approach, relief from royalty method. This discussion describes tangible property, intangible property, and the various types of intellectual property. This discussion also provides guidance for the valuation analyst in estimating an appropriate royalty rate to be applied in the valuation analysis of trademark and trade name intellectual property, specifically when applying the market approach, relief from royalty method.

Introduction

In the normal course of business, many companies utilize both tangible property and intangible property to generate revenue and to provide infrastructure for operations. While the distinction between a tangible property and intangible property may be intrinsically simple—many valuation analysts ("analysts") conclude that the distinction is whether you can physically hold or touch an asset (i.e., tangible property) versus an asset that you cannot physically hold or touch (i.e., intangible property)—from a valuation perspective, a more definitive distinction is required.

As presented in the textbook *Guide to Intangible Asset Valuation*:

> The important economic difference between a tangible asset and an intangible asset is this:
>
> - The value of a tangible asset is derived from its tangible nature.
> - The value of an intangible asset is derived from its intangible nature.[1]

Said another way, the physical components of a tangible asset—or value of the physical components of a tangible asset—are the asset. Conversely, the value of intangible property is derived from the legal rights associated with the intangible property and the intellectual property content of the intangible property (i.e., the value of an intangible property does not flow from its physical components).

This discussion focuses on the intellectual property category of intangible personal property, and specifically on the trademark and trade name category of intellectual property.

While there are many reasons to value trademark and trade name intellectual property, it is important that the analyst understands the unique characteristics of trademarks and trade names, as well as generally accepted valuation approaches and

methods, in estimating the value of this particular type of intangible personal property.

This discussion describes tangible property, intangible property, and the types of intellectual property. This discussion also addresses the valuation of intangible property, and, specifically, the estimation of an appropriate trademark or trade name royalty rate when applying the market approach, relief from royalty method.

Tangible Property, General Intangible Property, and Intellectual Property

In order to identify and understand intangible property, it may be helpful to first understand what constitutes tangible property. Tangible property generally can possess all of the legal rights that are associated with intangible property (as further discussed below). However, tangible property possesses one key distinction that intangible property does not: it is tangible.

While this may seem intuitive, there are certain specific attributes that an asset should possess in order for that asset to be identified as a tangible property. As presented in *Guide to Intangible Asset Valuation*, tangible property should possess the following:

1. It should have physical existence and substantial form; it should be corporeal.
2. It should be capable of being touched and seen.
3. It should be perceptible to the touch; it should be tactile.[2]

However, for intangible property as well, there should also be some tangible—or physical—evidence of its existence. This creates a dilemma, as the question now is "If there must exist tangible evidence of both tangible property and an intangible property, then what is the definitive difference between the two?"

The definitive difference between tangible property and intangible property is that (1) the value of tangible property is derived from its tangible nature and (2) the value of intangible property is derived from its intangible nature.

Tangible property value is derived from its physical features and depends solely on those physical features, such as a large commercial printer being able to effectively print thousands of copies of documents with minimal oversight or errors. Conversely, intangible property derives economic benefits, either directly or indirectly, from the legal rights and intellectual property content of the intangible property, including the ability to exploit, license, or transfer/sell the intangible property.

Intangible property typically possesses the following ownership characteristics:

1. It is subject to specific identification and a recognizable description.
2. It is subject to legal existence and protection.
3. It is subject to the rights of private ownership, which should be transferable.
4. It is documented by tangible evidence of its existence (such as a contract, license, etc.).
5. It is created or comes into existence at an identifiable time or as a result of an identifiable event.
6. It is able to be destroyed or terminated at an identifiable time or as a result of an identifiable event.

Further, the four categories of intangible property are as follows:

1. Intangible financial assets
2. General commercial intangible assets
3. Intellectual property intangible assets
4. Goodwill intangible value

While an analyst may not initially think of financial assets as intangible property, the cash, accounts and notes receivable, and stocks and bonds presented on a company's balance sheet represent financial intangible property. This is because the value of this property does not come from the actual tangible nature of the assets, but rather the value of this property is derived from the fact that an owner has the legal right to exchange this property for goods and services.

General intangible property is typically created in the normal course of business operations. Company executives do not have to make special efforts to create the general intangible property; rather they naturally develop as company executives manage the day-to-day operations of the business.

Examples of general intangible property include customer contracts and relationships, supplier contracts and relationships, a trained and assembled workforce, certain licenses and permits, proprietary operating systems and procedures, and company books and records.

In contrast, intellectual property is typically created by specific and conscious intellectual activity of the intellectual property developer. The creativity involved in developing an intellectual property can typically be identified and attributed to a specific individual (or group of individuals). Once created, intellectual property is a new and unique invention that can be either artistic, such as a book or a photographic image, or technological, such as a chemical process or computer software code.

As presented in *Guide to Intangible Asset Valuation*, there are four generally accepted types of intellectual property:

- Trademarks and trade names
- Patents
- Copyrights
- Trade secrets[3]

Each of these four intellectual property types is briefly summarized below.

Patents

A patent grants the patent holder the right to exclude others from making, using, or selling the patented invention or product for a specific duration of time. For example, a company that develops computer software may register a patent on each new program that it creates.

While the patent is in effect, no other computer software company can develop a software product using the patented program without permission of the patent owner. Once the patent expires, other computer software developers can produce identical software, generally in the form of generic programs.

Trademarks

A trademark identifies goods as coming from a particular manufacturer. A trademark can be a product brand name (such as Nike or GE) or a logo (such as the Nike "Swoosh" or the Apple "Apple"). Related to trademarks, service marks identify services as coming from a particular service provider.

For example, the "Golden Arches" of McDonald's is an example of a well-known service mark. A trademark also grants the owner the ability to prevent anyone else from using the trademark.

Copyright

A copyright is an exclusive right to reproduce, publish, or sell an original work of authorship. Similar to a patent, the legal protection related to a copyright lasts for a limited period of time. An author of any original work owns a copyright on that original work the moment it is completed.

Typically, in order to have assurance of intellectual property legal protection, the author will register the copyright. Copyright law covers many forms of an author's expression, including books, movies, paintings, and songs.

Trade Secret

A trade secret can be any commercial information that has value due to the fact that it is kept confidential and is not publicly known. For intellectual property to qualify as a trade secret, the commercial information (1) is required to be kept secret from the public and (2) should provide a commercial advantage to the owner/operator of the business.

A trade secret is often a secret process, method, or formula for producing a certain product or service, such as the secret formula for Coca-Cola or the secret recipe for KFC fried chicken.

Definition of Trademarks and Trade Names

A trademark includes any word, name, symbol, or device, or any combination, used, or intended to be used, in commerce to identify and distinguish the goods of one manufacturer or seller from goods manufactured or sold by others, and to indicate the source of the goods. Generally, a trademark lets a consumer know that a good is produced by a specific producer.

A service mark is the same as a trademark, except that it identifies and distinguishes the source of a service rather than a product. The terms "trademark" and "mark" are commonly used to refer to both trademarks and service marks.

Trademark rights may be used to prevent others from using a confusingly similar mark, but not to prevent others from making the same goods or from selling the same goods or services under a clearly different mark. Trademarks may be registered with the United States Patent and Trademark Office. The Lanham Act protects trademarks and defines a trademark as "any word, name, symbol, or device, or any combination thereof."[4]

A trade name is the name used by a company in its business activities. A trade name cannot be federally registered unless it also functions as a trademark or service mark, but otherwise is treated the same as a trademark or service mark for protection and infringement purposes. A registered corporate name can be used on legal documents, but if it infringes on another's trade name, trademark, or service mark, it cannot be used in ordinary trade.

Trade names can function as trademarks. Many companies use all or part of their business names as trademarks on their products, or in connection with their services. Consequently, one is not necessarily separable from the other. Therefore, for purposes of this discussion, we will include trademarks and trade names in our definition of the term trademarks.

Trademarks are valuable because they "may represent investment made in advertising and quality assurance testing."[5] For example, companies that develop a quality product (or service) and invest in the production of a quality product (or service) typically want consumers to identify and associate the product trademark with quality. The trademark associated with this quality product allows the owner to achieve that exact objective, which can be valuable.

Trademarks can also be licensed. As presented in *Guide to Intangible Asset Valuation*:

> A trademark can be licensed. Restaurant franchises often function using the license of the franchisor's trademark.[6] For example, restaurant franchisor Burger King licenses out its name and logo to individual franchisees. These franchisees independently operate their own Burger King restaurants. When a consumer sees the restaurant with the Burger King name and logo, the consumer has established expectations as to what food products will be on the menu and how those food products will taste.[7]

Intangible Property Valuation Approaches and Methods

There are many methods and procedures that may be used in the valuation of intangible property. When one considers the fundamental similarities and differences of these methods, they may all be grouped into three generally accepted property valuation approaches: the income approach, the market approach, and the cost approach.

The income approach is based on the economic principle of anticipation (also called the principle of expectation). In this approach, the intangible property value is the present value of the expected income to be earned from the operation or the ownership of the intangible property.

As the name of this principle implies, the investor anticipates the expected income to be earned from the intangible property. This expectation of prospective income is converted to present value, that is, the indicated value of the intangible property.

The market approach is based on the related economic principles of competition and equilibrium. These economic principles conclude that, in a free and unrestricted market, supply and demand factors will drive the price of an intangible property to a point of equilibrium.

The principle of substitution also directly influences the market approach. This is because the identification and analysis of equilibrium prices for substitute assets provide important evidence with regard to the value for an intangible property.

The cost approach is based on the economic principle of substitution. This economic principle indicates that an investor will pay no more for fungible intangible property than the cost to obtain (i.e., either purchase or construct) an intangible property of equal utility.

For purposes of this economic principle, utility can be measured in many ways, including functionality, desirability, and so on. The availability (and the cost) of substitute assets is directly affected by shifts in the supply and demand functions with regard to the universe of substitute investments.

For purposes of this discussion, we will focus on the market approach, and specifically the selection of an appropriate royalty rate to be used in the application of the market approach, relief from royalty method.

Generally, the relief from royalty method is one common valuation method used to estimate the value of trademarks.

Market Approach Valuation Methods

There are fewer market approach valuation methods available to estimate the value of a trademark as compared to either the cost approach or the income approach. Nonetheless, the practical application of a

market approach method is a complex and rigorous analytical process.

There is a systematic process to the application of market approach methods to trademark valuation. The basic procedures of this process are summarized as follows:

1. Research the appropriate exchange market to obtain information on sale/license transactions, listings, and offers to purchase/license guideline (i.e., generally similar) or comparable (i.e., almost identical) trademark assets that are similar to the subject trademark, in terms of characteristics such as trademark age, rights and restrictions, type, functional use, industry in which the trademark functions, date of sale, and so on.
2. Verify the information by confirming that the transaction data obtained are factually accurate and that the sale or license transactions reflect arm's-length market considerations. (If the guideline transactions were not 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 subject trademark.
3. Select relevant units of comparison (e.g., income multipliers or dollars per unit such as "per drawing," "per customer," or "per location") and develop a comparative analysis for each unit of comparison.
4. Compare the selected sale/license transactions with the subject trademark using the elements of comparison, adjust the sale or license price of each guideline transaction appropriately to the subject trademark, or eliminate the sale or license transaction as a guideline for future consideration.
5. Reconcile the various value indications produced from the analysis of the guideline sale/license transactions into a single value indication or a range of values. In an imprecise market—subject to varying economics—a range of values may sometimes be a better conclusion for the trademark than a single value estimate.

There are 10 basic elements of comparison that should be considered when selecting and analyzing guideline sale or license transactions in the market approach. These 10 basic elements of comparison are summarized below:

1. The legal rights of trademark ownership that were conveyed in the guideline sale/license transaction
2. The existence of any special financing terms or arrangements (e.g., between the buyer and the seller)
3. Whether the elements of arm's-length sale/license conditions existed
4. The economic conditions that existed in the relevant secondary market at the time of the sale/license transaction
5. The industry in which the trademark asset was—or will be—used
6. The physical characteristics of the guideline sale/license assets, as compared to the subject trademark
7. The functional characteristics of the guideline sale/license assets, as compared to the subject trademark
8. The technological characteristics of the guideline sale/license assets, as compared to the subject trademark
9. The economic characteristics of the guideline sale/license assets, as compared to the subject trademark
10. The inclusion of other (nonintangible) assets in the guideline sale/license transaction; this may include the sale of a bundle—or a portfolio—of assets which could include tangible personal property and/or real estate, as well as the trademark

The guideline sale/license transactions are commonly referred to as comparable uncontrolled transactions or "CUTs". Further, in conducting the search, some of the more popular sources that the analyst may rely on include the following:

1. RoyaltySource Intellectual Property Database, a service of AUS Consultants
2. KtMINE database, available through Business Valuation Resources and others

Considerations in the Selection of an Appropriate Royalty Rate When Applying the Market Approach Relief from Royalty Method

In estimating an appropriate royalty rate to be used in the application of the market approach, relief from royalty method, there are numerous attributes or factors to be considered by the analyst. These attributes or factors may be either quantitative or qualitative in nature.

Exhibit 1 presents a nonexhaustive list of some of the qualitative attributes that the valuation analyst should consider when analyzing trademark CUT

data within the market approach, relief from royalty method.

It is important for the analyst to understand that the above-listed qualitative factors are nonexhaustive, as each trademark is unique and there may be other qualitative attributes not listed above that would affect the selection of an appropriate royalty rate to be used in the valuation analysis of a subject trademark (when applying the market approach, relief from royalty method).

The above considerations will assist the analyst in estimating an appropriate royalty rate that an independent party would be willing to pay to license the trademark. This is because the relief from royalty method is based on the principle that the trademark owner would be willing to pay a reasonable royalty rate to license the trademark if it was not already owned. License royalty rates can be estimated from an analysis of market-derived empirical data with respect to the license of guideline trademarks.

In order to estimate an appropriate, fair royalty rate to be used in the relief from royalty method, the analyst should analyze publicly available data related to arm's-length royalty and/or license agreements. From these data, the analyst can conclude an actual arm's-length royalty and/or license payment range for the trademark based on the guideline royalty and/or license agreement data.

This estimated royalty rate can then be applied to a relevant subject royalty income measure such as (1) total royalty dollar payments per period, (2) royalty rate as a percentage of revenue, (3) royalty rate as a percentage of profits, (4) royalty dollar amount per unit sold, or (5) royalty dollar amount per unit allocated, in order to estimate the fair market value of the trademark.

In addition to considering the qualitative factors presented in Exhibit 1, the analyst should also address several issues in order to ensure that the selected royalty rate for the trademark is accurate and appropriate. These issues include the following:

1. Ensuring that the selected arm's-length royalty and/or license agreements are not duplicative
2. Ensuring that the selected arm's-length royalty and/or license agreements are in effect as of the trademark valuation date
3. Ensuring that the selected arm's-length royalty and/or license agreements are within the trademark owner/operator industry
4. Ensuring that the selected arm's-length royalty and/or license agreements are in reasonably close proximity to the trademark valuation date
5. Ensuring that the selected arms'-length royalty and/or license agreements are truly "arm's-length," and not related party transactions

Conclusion

This discussion presented an overview of tangible property and intangible property, including the key differences between the two property categories. This discussion also addressed the four generally accepted types of intellectual property, and specifically trademark and trade name intangible property.

While there are three generally accepted approaches to estimating the value of trademarks, the relief from royalty method is a common market approach trademark valuation method.

In applying the relief from royalty method, one of the procedures is to estimate an appropriate royalty rate to be used in the trademark analysis. This appropriate, royalty rate is typically estimated by considering publicly available data related to arm's-length royalty and/or license transactions of intellectual property generally similar to the subject trademark. This estimated royalty rate can then be applied to a relevant royalty income measure in order to estimate the value of the subject trademark.

Notes:

1. Robert F. Reilly and Robert P. Schweihs, *Guide to Intangible Asset Valuation*, Revised ed. (New York: American Institute of Certified Public Accountants, Inc., 2014), 9.
2. Reilly and Schweihs, *Guide to Intangible Asset Valuation*, 9.
3. Ibid., 29.
4. 15 U.S.C. §1127.
5. Patricia S. Rogowski and Craig H. Young, *Bankruptcy and its Impact on Intellectual Property*, 2nd ed. (Alexandria, VA: American Bankruptcy Institute, 2009), 23.
6. Ibid., 27.
7. Reilly and Schweihs, *Guide to Intangible Asset Valuation*, 29.

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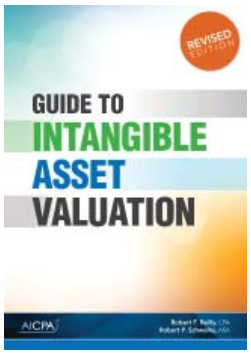
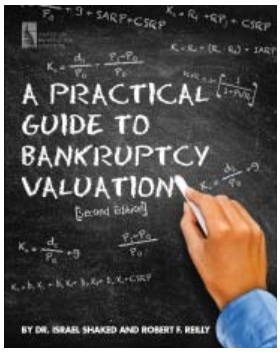
Exhibit 1
Nonexhaustive Qualitative Attributes to Consider in Valuing Trademarks

Item	Economic Attribute	Positive Influence on Economic Analysis	Negative Influence on Economic Analysis
1	Age-absolute	long established trademarks	newly created trademarks
2	Age-relative	older than competing trademarks	newer than competing trademarks
3	Use-consistency	used consistently on related products and services	used inconsistently on unrelated products and services
4	Use-specificity	general and can be used on a broad range of products and services	specific and can only be used on a narrow range of products and services
5	Use-geography	wide appeal, e.g., can be used internationally	narrow appeal, e.g., can only be used locally
6	Potential for expansion	unrestricted ability to use trademarks on new or different products and services	restricted ability to use trademarks on new or different products and services
7	Potential for exploitation	unrestricted ability to license trademark into new industries and uses	restricted ability to license trademark into new industries and uses
8	Associations	associated with positive person, event, location	associated with negative person, event, location
9	Connotations	has positive connotations and reputation among consumers	has negative connotations and reputation among consumers
10	Timeliness	perceived as modern	perceived as old-fashioned
11	Quality	perceived as respectable	perceived as less respectable
12	Profitability-absolute	profit margins or investment returns on products and services higher than industry average	profit margins or investment returns on products and services lower than industry average
13	Profitability-relative	profit margins or investment returns on products and services higher than competing trademarks	profit margins or investment returns on products and services lower than competing trademarks
14	Expense of promoting	low cost of advertising, promotion, deals, or other marketing of trademarks	high cost of advertising, promotion, deals, or other marketing of trademarks
15	Means of promoting	numerous means available to promote	few means available to promote
16	Market share-absolute	products and services have high market share	products and services have low market share
17	Market share-relative	products and services have higher market share than competing trademarks	products and services have lower market share than competing trademarks
18	Market potential-absolute	products and services are in an expanding market	products and services are in a contracting market
19	Market potential-relative	market for products and services expanding faster than competing trademarks	market for products and services expanding slower than competing trademarks
20	Name recognition	high recognition, e.g., high aided or unaided recall among consumers	low recognition, e.g., low aided or unaided recall among consumers
21	Industry	industry revenue is increasing	industry revenue is decreasing
22	Stability	historical positive operating performance	lack of historical positive operating performance
23	Leadership	consistent and effective leadership	inconsistent and ineffective leadership

Valuation Textbooks Authored by Robert Reilly and Robert Schweihs





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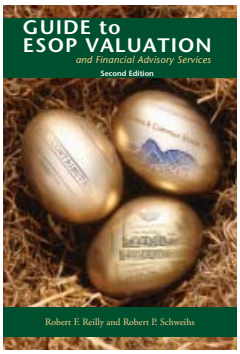

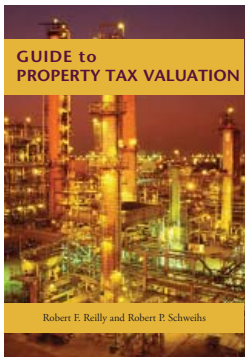

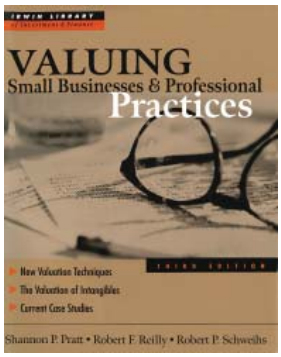

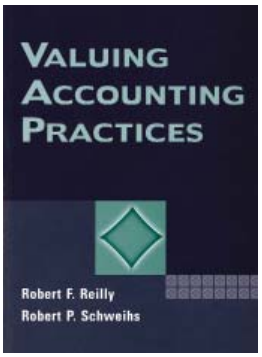

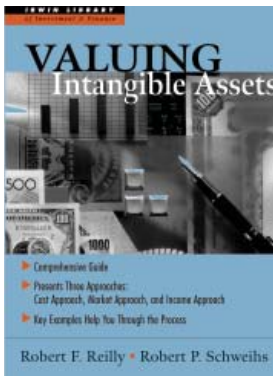

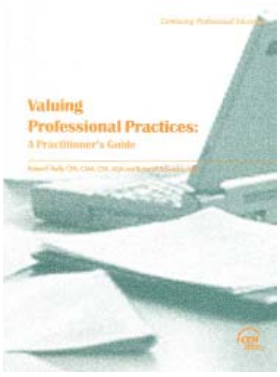

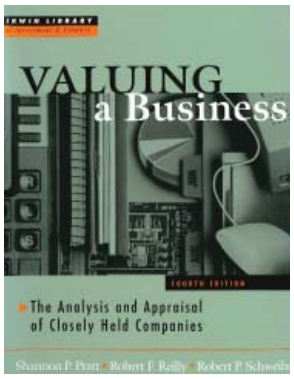

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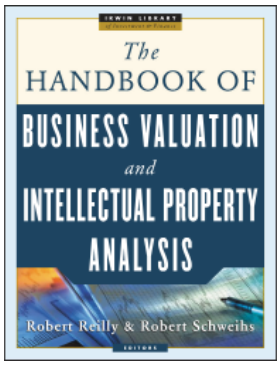

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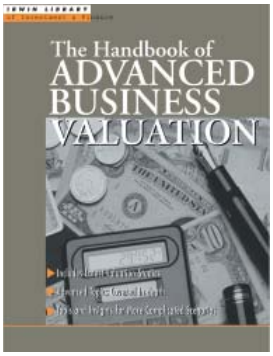

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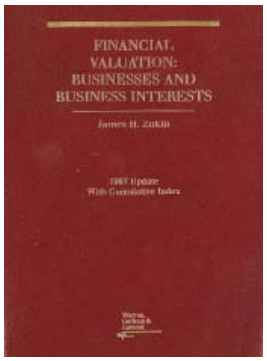

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Willamette Management Associates

Estimating Trademark Royalty Rates for Intercompany Transfer Price Analyses

John C. Ramirez and Casey D. Karlsen

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Transfer price analysts ("analysts") are often called on to estimate arm's-length trademark royalty rates as part of a tax-related intercompany transfer price analysis. This discussion (1) summarizes the regulations for transfer pricing for federal income tax purposes and (2) describes the intangible property intercompany transfer price methods that may be used to evaluate whether or not transactions between members of controlled groups satisfy the arm's-length standard. This discussion then provides insight regarding the factors to consider when estimating trademark royalty rates for intercompany transfer price analyses, with a focus on comparability factors for selecting market-based transactional data.

Introduction

In recent years, the Internal Revenue Service (the "Service") has increased its scrutiny of many intangible property transfer price arrangements. This is because the Service is concerned that a domestic taxpayer could avoid domestic taxes by transferring intangible property, and allocating the associated income, to a related foreign entity located in a country with a lower income tax rate.

A significant portion of the commercial taxpayer income may be associated with its intangible property. Accordingly, the intercompany transfer of this intangible property may have a material effect on the domestic income taxes incurred.

In the recent *Amazon.com* decision, the Service contended that the reported buy-in payment of $254.4 million for the controlled transfer of intangible property (including trademarks, trade names, and domain names, as well as software and other technology and customer lists) had not been determined at arm's length.[1]

The Service then determined a buy-in payment of $3.6 billion, which the Tax Court found to be unreasonable.

The *Amazon.com* decision indicates the increased scrutiny of intangible property transfer price arrangements by the Service. And, the *Amazon.com* decision provides insight into the estimation of intercompany transfer price trademark royalty rates. This discussion makes frequent reference to guidance from the *Amazon.com* decision.

This discussion focuses on the intercompany transfer of intangible property—and specifically trademarks, trade names, and brand names (referred to collectively in this discussion as "trademarks")—between international subsidiaries of a multinational parent corporation.

Trademarks are valuable intangible property that are frequently transferred or licensed from one related entity to another related entity. Trademark royalty rates are typically one of the most hotly contested aspects involved in an intangible property transfer pricing dispute.

For U.S. income tax purposes, related-party transactions are regulated by the Service according to Internal Revenue Code Section 482 and the associated Treasury Regulations. This discussion focuses on the best practices described in the Section 482 regulations. The trademark royalty rate estimation methodology presented in this discussion may also be applicable to trademark transfer price analyses or valuations performed for other purposes.

To develop supportable transfer pricing trademark royalty rates, transfer price analysts should:

1. have a clear understanding of the Section 482 regulations and the general factors and circumstances that affect the pricing of trademark royalty rates and
2. prepare a defensible analysis that considers the best method rule, relevant comparability criteria, and reliable market-based transactional data.

First, this discussion provides an overview of the Section 482 regulations pertaining to trademark transfer pricing. Second, this discussion presents the methods and procedures to estimate trademark royalty rates and the factors and circumstances to consider when selecting trademark royalty rates for transfer pricing purposes.

Overview of the Section 482 Regulations and the Arm's-Length Standard

Analysts should develop a thorough understanding of the Section 482 regulations when estimating a trademark royalty rate as part of an intercompany transfer pricing engagement for federal income tax purposes.

The purpose of the Section 482 regulations is to ensure that taxpayers clearly reflect the income attributable to controlled transactions. The Section 482 regulations place controlled taxpayers on parity with uncontrolled taxpayers.

For purposes of the Section 482 regulations, "taxpayers" includes any one of two or more persons, organizations, trades, or businesses that is not owned or controlled directly or indirectly by the same interests.

The standard to be applied under the Section 482 regulations is that of a taxpayer dealing at arm's length with an uncontrolled taxpayer. A controlled transaction meets the arm's-length standard if the results of the controlled transaction are consistent with the results that would have been realized if uncontrolled taxpayers had engaged in the same or comparable transaction under the same or comparable circumstances.

The definition of controlled "includes any kind of control, direct or indirect, whether legally enforceable or not, and however exercisable or exercised, including control resulting from the actions of two or more taxpayers acting in concert or with a common goal or purpose."[2]

The U.S. Tax Court and transfer pricing practitioners often equate the arm's-length price of a property to the fair market value of the property at the time of a transaction.

The arm's-length price of intangible property should be commensurate with the income attributable to the intangible property. If the intangible property transferee pays nominal or no consideration for the intangible property at the transaction date and the transferor retains a substantial interest in the property, then the arm's-length consideration may be in the form of royalty payments.

If intangible property is transferred through an arrangement that covers multiple years, the consideration charged in each taxable year may be adjusted to ensure that it is commensurate with the income attributable to the intangible property.

The Section 482 regulations discuss guidelines for comparing the subject controlled transaction to similar uncontrolled transactions. This comparative analysis requires the examination of the facts and circumstances relevant to (1) the controlled transaction and (2) the uncontrolled transactions used to test the arm's-length result of the controlled transaction.

Intangible Property Transfer Price Methods

There are four intangible property intercompany transfer price methods discussed in the Section 482 regulations:

1. The comparable uncontrolled transaction ("CUT") method
2. The comparable profits method
3. The profit split method
4. Unspecified methods

These transfer price methods may be used to evaluate whether or not the transfer of intangible property between members of a controlled group satisfies the arm's-length standard. If the transfers are found to not meet the arm's-length standard, these transfer price methods may be used to estimate an intercompany transfer price arrangement that does comply with the arm's-length standard.

Comparable Uncontrolled Transaction Method

Analysts may use the CUT method to evaluate whether the amount charged for a controlled transfer of intangible property meets the arm's-length

standard by reference to the amount charged in a comparable uncontrolled transaction.

The CUT method "compares a controlled transaction to similar uncontrolled transactions to provide a direct estimate of the price the parties would have agreed to had they resorted directly to a market alternative to the controlled transaction."[3]

The Section 482 regulations allow for application of the CUT method both where the comparable transaction involves the same intangible property under substantially the same circumstances as the controlled transfer and, absent such evidence, when the comparable transactions involve comparable intangible property under comparable circumstances.

Circumstances are considered comparable if:

1. there are at most only minor differences between the controlled and uncontrolled transactions,
2. the differences have a definite and reasonably ascertainable effect on the amount charged, and
3. appropriate adjustments are made to account for any differences.

The intangible property transferred in an uncontrolled transaction is generally considered to be comparable to that transferred in the controlled transaction if both intangible properties:

1. are used in connection with similar products or processes within the same general industry or market and
2. have similar profit potential.

It is noteworthy that controlled transactions and comparable uncontrolled transactions do not have to be identical. With regard to the standard of comparability, the Section 482 regulations indicate that controlled transactions and comparable uncontrolled transactions need only be "sufficiently similar" to indicate a reliable result. Comparability of controlled and uncontrolled transactions will be further analyzed in a later section of this discussion.

In the *Amazon.com* decision, the expert witnesses for both the respondent and the petitioner employed the CUT method to value the subject marketing intangible property. The Tax Court affirmed that the CUT method was appropriate for that particular analysis.

Comparable Profits Method

The comparable profits method evaluates whether the amount charged in a controlled transaction is at arm's length based on objective measures of profitability derived from uncontrolled entities (i.e., persons, organizations, or businesses) that engage in similar business activities under similar circumstances.

Profit Split Method

The profit split method evaluates whether the allocation of the combined operating profit or loss attributable to a controlled transaction meets the arm's-length standard by reference to the relative value of each party's contribution to the combined profit or loss of both parties.

The combined operating profit or loss should be derived from the most narrowly identifiable business activity of the controlled entity.

Unspecified Method

An unspecified method may be used to determine whether a controlled transaction meets the arm's-length standard by indicating the prices or profits that the controlled party could have realized by choosing a realistic alternative to the controlled transaction.

An unspecified method should take into account the general principle that the parties of an uncontrolled transaction typically evaluate the terms of a transaction based on consideration of the realistic alternatives to that transaction. The parties of an uncontrolled transaction typically will only enter into a particular transaction if there are no better alternatives.

It is noteworthy that to the extent that an unspecified method relies on internal data rather than on uncontrolled comparable data, its reliability is reduced.

Best Method Rule

The Section 482 regulations require that arm's-length considerations for intercompany transactions be determined using the best method rule.

The best method rule states, "The arm's length result of a controlled transaction must be determined under the method that, under the facts and circumstances, provides the most reliable measure of an arm's length result. . . . There is no strict priority of methods, and no method will invariably be considered to be more reliable than others."[4]

Analysts should select the method that relies on the most comparable data available based on the results of transactions between unrelated parties. If comparable market transactional data are available, the CUT method may be the most relevant method for trademark transfer price analyses. In many

cases, comparable trademark license transactions (i.e., market-based transactional data) provide the most defensible and reliable evidence of an arm's-length result.

For example, the Tax Court indicated in the *Amazon.com* decision, "If an uncontrolled transaction involves transfer of the same intangible under the same or substantially similar circumstances, the CUT method will generally yield the most reliable measure of the arm's-length result. If uncontrolled transactions involving the same intangible under the same or substantially similar circumstances cannot be identified, uncontrolled transactions involving 'comparable intangibles under comparable circumstances' may be used, but the results may be less reliable."[5]

The two primary factors to consider when determining which of two or more available methods provides the most reliable indication of an arm's-length result are as follows:

1. The quality of the data and assumptions used in the analysis
2. The degree of comparability between the controlled transaction (or taxpayer) and any uncontrolled comparable transactions.

The following factors are particularly relevant in evaluating the quality of the data and the assumptions used in the analysis:

1. Completeness and accuracy of the data
2. Reliability of assumptions
3. Sensitivity of the results to deficiencies in data and assumptions

Comparability of Controlled Transactions and Uncontrolled Transactions

The Section 482 regulations specify general factors to determine the degree of comparability between the controlled transaction (or taxpayer) and any uncontrolled comparable transactions including the following:

- Functions performed—Analysts should perform an in-depth comparative analysis of the economically significant activities undertaken by the entities in the controlled and uncontrolled transactions. Functions analyzed may include the following:
  1. Research and development
  2. Product design and engineering
  3. Manufacturing, production, and process engineering
  4. Marketing and distribution
  5. Other relevant functions
- Contractual terms—An analysis of contractual terms may include the following:
  1. The form of consideration paid
  2. Sales or purchase volume
  3. Duration of the license
  4. Collateral transactions or ongoing business relationships between the parties
  5. Extension of credit and payment terms
- Risks assumed—Comparability with regard to risks assumed requires consideration of risks that may affect prices charged or profits earned. This analysis may consider risks associated with the following:
  1. Market fluctuations in cost, demand, and pricing
  2. The success or failure of research and development activities
  3. Financial risks such as interest rates, foreign currency exchange rates, and credit and collection risks
  4. Product liability risks
  5. Other general business risks
- Economic conditions—A comparative analysis of the economic conditions affecting the controlled transaction and any uncontrolled transactions may include factors such as the following:
  1. The geographic markets served
  2. The size and economic development of markets
  3. The level of market (i.e., wholesale, retail, etc.)
  4. Market share
  5. Competition
- Nature of the property or services—Analysts should perform a comparative analysis with regard to the property or services of the controlled and uncontrolled transactions.

Analysts may make adjustments to transactional data in any method in order to increase the comparability between the controlled transaction or taxpayer and the uncontrolled comparable transactions. Adjustments may be made based on commercial practices, economic principles, or statistical analyses. However, the number, magnitude, and reliability of adjustments to transactional data may affect the reliability of the results of the analysis.

For purposes of the Section 482 regulations, "In order to be considered comparable to a controlled transaction, an uncontrolled transaction need not be identical to the controlled transaction, but must be sufficiently similar that it provides a reliable measure of an arm's length result."[6] In other words, inexact comparable transactions may be used to estimate an arm's-length result.

The above comparability factors are useful to identify relevant market-based transactional data and select the most appropriate intangible property transfer price method. Based on the availability of market-based transactional data, the CUT method is often selected as the best method for trademark transfer price analyses.

Therefore, the remainder of this discussion focuses on the factors and circumstances to consider when selecting a trademark royalty rate for transfer pricing purposes.

Defining the Subject Intangible Property

An initial procedure in estimating trademark royalty rates using the CUT method is the identification of the property subject to analysis. Determining the analysis subject is an important procedure in any tax-related transfer price analysis, and it is especially important when using the CUT method. This is because the credibility of the CUT method is based on identifying comparable transactions involving comparable property.

For purposes of the Section 482 regulations, intangible property is considered to be property that includes any of the following items:

1. Patents, inventions, formulas, processes, designs, patterns, or know-how
2. Copyrights and literary, musical, or artistic compositions
3. Trademarks, trade names, or brand names
4. Franchises, licenses, or contracts
5. Methods, programs, systems, procedures, campaigns, surveys, studies, forecasts, estimates, customer lists, or technical data
6. Other items similar to the above items that derive value not from physical attributes but from intellectual content or other intangible properties

The above-listed intangible property can be transferred as a single asset or as a bundle of assets. It is important for analysts to identify exactly what bundle of property was transferred and what bundle of property is being analyzed.

With regard to the identification of intangible property, we note that the transferred intangible property is not equivalent to the business enterprise into which the intangible property were transferred. In the recent *Amazon.com* decision, an expert witness for the Service estimated the value of the transferred intangible property by capitalizing the cash flow from the entire business enterprise into which the intangible property were transferred.

The Tax Court rejected this analysis, stating that it "in effect treated the transfer of pre-existing intangibles as economically equivalent to the sale of an entire business. . . . By employing an enterprise valuation, [the expert witness] necessarily sweeps into his calculation assets that were not transferred under the [cost sharing arrangement] and assets that were not compensable 'intangibles' to begin with. . . . These include workforce in place, going concern value, goodwill, and what trial witnesses described as 'growth options' and corporate 'resources' or 'opportunities.'"[7]

Other Considerations in the Analysis of Trademark Royalty Rates

There are numerous additional attributes that may affect the estimation of trademark royalty rates. These additional attributes include the following:

1. Age of the trademark (both absolute and relative to the trademarks of competitors)
2. Consistent use of the trademark
3. Specificity of use of trademark (i.e., whether the trademark is applicable to a wide range of products)
4. Geographic limitations of trademark recognition
5. Potential for expansion and exploitation of trademark
6. Association with positive events, persons, or locations
7. Timeliness of trademark (i.e., whether the trademark is perceived as modern)

Some of the economic attributes may be more relevant to one trademark than another. However, these attributes can help the analyst perform an overall assessment of the quality and nature of the trademarks when conducting a pricing analysis. This assessment may assist the analyst in:

1. understanding the use and function of the trademarks and

2. identifying the factors (and, ultimately, the methods and procedures) that are important in the pricing of the trademarks.

Sources of Trademark License Agreements

Analysts may use a number of data sources in order to identify comparable trademark license agreements. These data sources include government databases, news and industry trade publications, and third-party subscription-based royalty rate databases.

Examples of third-party intangible property license agreement royalty rate databases include the following:

1. RoyaltySource (www.royaltysource.com)—This AUS Consultants database provides intangible property license royalty rates and sale data. RoyaltySource provides access to source documents.
2. RoyaltyStat, LLC (www.royaltystat.com)—RoyaltyStat is a subscription-based database of intangible property license royalty rates, license agreements, and sale data compiled from Securities and Exchange Commission ("SEC") documents.
3. RoyaltyRange (www.royaltyrange.com)—RoyaltyRange provides online access to license royalty rate and other license information related to technology, patents, trade secrets, and other intangible property.
4. ktMINE (www.bvmarketdata.com)—ktMINE is an interactive database that provides direct access to intangible property license royalty rates, license agreements, and sale agreements. Source documents may be printed.

These third-party royalty rate data providers collect transactional data regarding intangible property (including trademark) license agreements from publicly available sources, such as SEC filings, news articles, industry trade publications, and company press releases.

Selecting Comparable Transactions

This discussion previously presented comparability criteria to assist the analyst in identifying which intangible property transfer price method is most supported by available market-based transactional data under the best method rule.

The aforementioned comparability criteria may be used to identify CUTs in the CUT method. And, the Section 482 regulations discuss further comparability considerations specifically with regard to the selection of CUTs.

When selecting comparable trademark license transactions for a transfer pricing analysis, all of the relevant factors that affect the price that would be paid or the profit that would be earned in the transactions should be considered.

In order for the intangible property involved in an uncontrolled transaction to be considered comparable to the intangible property involved in the controlled transaction, both intangible properties should:

1. be used in connection with similar products or processes in the same general industry or market and
2. have similar profit potential.

The Section 482 regulations state that factors that may be relevant in assessing the comparability between the controlled and uncontrolled transactions include the following:

1. The terms of the transfer (including exclusivity characteristics, limitations on use, and the geographical area in which the rights may be exploited)
2. The stage of development of the intangible property
3. The rights to receive updates, revisions, or modifications of the intangible property
4. The uniqueness of the intangible property
5. The duration of the license, contract, or agreement, and any termination or renegotiation rights
6. The economic and product liability risks to be assumed by the transferee
7. The existence of any collateral transactions or ongoing business relationships between the transferee and the transferor
8. The functions to be performed by the transferor and the transferee

Additionally, the comparison between controlled transactions and uncontrolled transactions should typically be performed over a similar time period. Similarity of the controlled transactions to comparable uncontrolled transactions in one period does not indicate that this similarity holds in other periods.

To select supportable comparable trademark royalty rates, analysts should prepare a thorough

"Analysts should estimate intercompany transfer price trademark royalty rates using guidance from the Section 482 regulations."

and well documented comparability analysis of the controlled and uncontrolled transactions based on the comparability factors listed above.

This procedure will ensure that the functions and risks related to the comparable uncontrolled transactions are similar to the subject controlled transaction. And, this procedure will demonstrate that the analyst considered the nature of the transactions, as well as the factors and circumstances that affect the price that would be paid—or the profit that would be earned—in the transactions.

Establishing the Royalty Range

The Section 482 regulations allow an arm's-length result to fall within a range. An analyst may develop a range of results by applying the same pricing method to as few as two uncontrolled transactions that have a similar level of comparability and reliability.

The arm's-length price range consists of the results of all of the comparable uncontrolled transactions that meet the following conditions:

1. The information on the controlled transaction and the comparable uncontrolled transactions is sufficiently complete that it is likely that all material differences have been identified.
2. Each such difference has a definite and reasonably ascertainable effect on price or profit.
3. An adjustment is made to eliminate the effect of each such difference.

If there are no comparable uncontrolled transactions that meet these conditions, then the arm's-length range may be derived from the results of all the comparable uncontrolled transactions that achieve a similar level of comparability and reliability.

If the taxpayer operating results fall within the arm's-length price range, then no adjustment will be made to the taxpayer income or deductions.

That is, if the royalty rate charged by the taxpayer in the controlled transaction falls within the range of royalty rates derived from comparable uncontrolled transactions, then it will be considered to be an arm's-length royalty rate result.

Conclusion

Trademarks, trade names, and brand names are valuable intangible property that are frequently transferred (or licensed) between related parties. Analysts are often tasked with estimating an arm's-length royalty rate as part of a tax-related intercompany transfer pricing analysis.

Trademark royalty rates are typically one of the contested aspects involved in a transfer pricing dispute. Analysts often use the comparable uncontrolled transaction method when estimating trademark royalty rates for intercompany transfer price analyses.

Analysts should estimate intercompany transfer price trademark royalty rates using guidance from the Section 482 regulations. In order to establish credible and defensible trademark transfer price royalty rates, analysts should:

1. consider the comparability of market-based transactional evidence to the controlled transaction when selecting the transfer price method under the best method rule and
2. confirm that the functions and risks related to the comparable uncontrolled transactions are similar to the subject controlled transaction when using the comparable uncontrolled transaction method.

When trademark royalty rate CUT data are available, the CUT method may provide the most defensible and reliable indication of an arm's-length royalty rate.

Notes:

1. Amazon.com, Inc. v. Commissioner, 148 T.C. No. 8 (2017).
2. Treas. Reg. §1.482-1(i)(4).
3. Treas. Reg. §1.482-4(d)(1).
4. Treas. Reg. §1.482-1(c)(1).
5. Amazon.com, Inc. 148 T.C. No. 8 at *32.
6. Treas. Reg. § 1.482–1(d)(2).
7. Amazon.com, Inc., 148 T.C. No. 8 at *27-29.

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Applications of the Asset-Based Business Valuation Approach

Robert F. Reilly, CPA

The asset-based approach is one of the three generally accepted approaches that may be applied in the valuation of closely held businesses, business ownership interests, and securities. Nonetheless, many valuation analysts ("analysts") are not familiar with the application of asset-based approach business valuation methods and procedures. And, many legal counsel—and other parties who rely on business valuations—are not familiar with how to interpret—or how to apply—the results of an asset-based approach business valuation. This discussion summarizes what analysts (and parties who rely on business valuations) need to know about the application of this generally accepted business valuation approach, particularly with regard to the issues of: the concluded premise of value, the concluded level of value, any restrictions on the sale of the subject entity assets, the recognition of an income tax liability related to any asset appreciation, and the measurement of the subject entity goodwill and any other intangible asset value.

Introduction

Most valuation analysts ("analysts")—and many business owners, legal counsel, regulatory and taxation authorities, and others—are familiar with the concept of the asset-based approach to business enterprise valuation.

Analysts (and other parties who rely on business valuations) understand that there are three generally accepted business valuation approaches: the income approach, the market approach, and the asset-based approach. However, most analysts rarely (if ever) apply the asset-based approach as a regular part of their business valuation analyses.

If those analysts have ever applied the asset-based approach, it was probably in the valuation of a real estate holding company or an investment holding company. And, in these instances, the analyst simply may have obtained current "appraised" values for the real estate or the investment portfolio assets that were recorded on the subject company's balance sheet.

To these analysts, the simple substitution of the current values of these recorded assets for the historical costs of the recorded assets constituted an asset-based approach business valuation.

Most accountants and auditors, regulatory and taxing authorities, bankers, corporate acquirers and other investors, lawyers, judicial finders of fact, and other parties that rely on business valuations are even less familiar with the application of the asset-based business valuation approach.

These parties may not expect to see the asset-based approach performed—except with regard to a real estate holding company or other investment holding company—in the typical closely held business valuation. And, these parties may not be comfortable interpreting or relying on asset-based approach valuation analyses and business value conclusions.

Therefore, many analysts may not be adequately trained and experienced in the preparation of an asset-based approach valuation. And, parties that rely on such business valuations may not be

comfortable making decisions based on an asset-based approach valuation.

Often, both analysts and other parties are reluctant to prepare—or to rely on—asset-based approach business valuations. This is because they are uncertain of the answers to the following questions regarding these valuation analyses:

1. Does the asset-based approach conclude a going-concern value or a liquidation value?
2. Which property (or asset) valuation approaches should be used in the application of the asset-based business valuation approach?
3. When is it appropriate to use the capitalized excess earnings method ("CEEM") to conclude intangible value in the nature of goodwill?
4. When is it appropriate to measure economic obsolescence in the cost approach valuation of the entity's tangible assets and intangible assets?
5. When is it appropriate to measure selling expenses (or make-ready costs or holding period expenses) in the market approach valuation of the entity's tangible assets and intangible assets?
6. How should the analyst account for the capital gains tax liability associated with any appreciation of the value of the entity's tangible assets and intangible assets?
7. How does the analyst apply the asset-based approach when the subject entity assets can't be immediately sold (due to contractual or other restrictions)?
8. Do the same (or different) level of value adjustments that apply to the income approach and the market approach (say discounts for lack of control and for lack of marketability) also apply to the asset-based approach?

Each of these procedural application (or "how to") issues will be considered in this discussion. This discussion will be presented from two related perspectives.

First, the discussion will assume that the analyst has performed an asset-based approach analysis. Now the analyst has to decide: how do I interpret the business value indication? For example, is the asset-based approach value indication a going-concern value indication or a liquidation value indication?

Second, the discussion will assume the analyst wants to complete a specified valuation assignment. For example, the assignment could be to estimate the value of a nonmarketable, noncontrolling interest in a certain closely held company. The issue may be: what property valuation methods and procedures should the analyst apply in order to achieve the intended valuation objective?

Consensus regarding the Asset-Based Approach

Before we consider the above-listed issues, let's consider what analysts generally agree are consensus positions with regard to the application of the asset-based approach in a business valuation analysis.

1. The asset-based approach is a generally accepted business valuation approach. With the income approach and the market approach, the asset-based approach is one of three generally accepted business valuation approaches.
2. The asset-based approach can be used to value both asset holding (or property investment) companies and operating companies.
3. The asset-based approach can be used to value both tangible-asset-intensive companies and intangible-asset-intensive companies.
4. All companies (whether operating companies or asset holding companies) are asset-intensive companies. That is, all companies own tangible assets, intangible assets, or both types of assets.
5. The asset-based approach typically concludes a marketable, controlling ownership interest level of value. Therefore, the asset-based approach is more applicable to conclude this level of value.
6. The asset-based approach value indication can be adjusted to indicate a nonmarketable, noncontrolling level of value. However, the analyst should apply care in identifying and quantifying the appropriate discount for lack of control ("DLOC") and discount for lack of marketability ("DLOM").
7. The appropriate DLOC and DLOM adjustments to apply to an asset-based approach value indication may be different than the corresponding valuation adjustments to apply to the income approach or the market approach value indications.

   This is because the application of the asset-based approach assumes a high degree of asset liquidity and a high degree

of ownership control (in order to initiate the hypothetical asset purchase or the hypothetical asset sale process).

8. There are generally accepted asset-based approach business valuation methods. The two most common asset-based approach methods are the asset accumulation ("AA") method and the adjusted net asset value ("ANAV") method.

9. The AA method generally involves the discrete revaluation of each of the entity's individual asset and liability accounts. The ANAV method generally involves the collective revaluation of all of the entity's asset and liability accounts in the aggregate. If all of the analysis valuation variables are applied consistently, the AA method and the ANAV method should conclude the same value for the same business entity.

10. The asset-based approach valuation methods can be applied to conclude various alternative standards (or definitions) of value, including fair value, fair market value, and other standards of value. The valuation procedures performed and the valuation variables selected should be consistent with the standard of value sought.

11. The asset-based approach valuation methods can be applied to conclude various alternative premises of value, including value in continued use and value in liquidation. The valuation procedures performed and the valuation variables selected should be consistent with the premise of value sought.

12. A going-concern premise of value implies that the business owner/operator will recreate the actual business entity.

    The analyst will typically apply cost approach valuation methods to conclude the value of the subject tangible assets and intangible assets as part of a business recreation analysis. A liquidation premise of value implies that the business owner/operator will liquidate the actual business entity.

    The analyst will typically apply market approach valuation methods to conclude the value of the subject tangible assets and intangible assets as part of a business liquidation.

13. The analyst will incorporate income tax considerations in an asset-based approach analysis as appropriate.

    Often, there are few income tax considerations in a going-concern premise valuation. A business typically would not incur an income tax liability if it were to incur the cost of recreating its own assets. A business may incur a deferred income tax liability if the value of its assets has appreciated over time.

    Often, there are many income tax considerations in a liquidation premise valuation. A business typically would incur an immediate income tax liability if it were to sell its own assets.

14. For an asset holding company, an asset-based approach is often relied on to provide the primary value indication. For an operating company, the asset-based approach is not often relied on to provide the primary value indication. For an operating company valuation, the asset-based approach is often relied on in conjunction with other value indications.

    For an operating company, the asset-based approach is sometimes relied on to provide confirmation of the income approach and the market approach value indications.

15. The asset-based approach is not the cost approach. The asset-based approach is a generally accepted business valuation approach. The cost approach is a generally accepted property valuation approach. The valuation method and procedures applied in the asset-based approach are different from the valuation methods and procedures applied in the cost approach.

    Analysts often apply cost approach valuation methods to value certain tangible and intangible asset categories that are included in an asset-based approach business valuation.

    However, analysts also typically apply market approach and income approach valuation methods to value other tangible and intangible asset categories that are included in an asset-based approach business valuation.

The following section considers when and how to apply certain methods and procedures in an asset-based approach business valuation.

When to Apply the Asset-Based Approach

A common nomenclature may be helpful to our discussion. Both parties who rely on business valuations and valuation analysts themselves often use asset-based approach jargon imprecisely.

First, the asset-based approach estimates the value of an entity's equity by reference to the value of the entity's assets minus the value of the entity's liabilities. The important point here is that this valuation approach considers both assets and liabilities—and not just assets.

In applying asset-based approach methods, the analyst may conclude that the value of liabilities may (or may not) be represented by recorded accounting balance. However, the analyst should consciously and carefully reach that conclusion. An analysis that revalues the entity assets only (and that ignores consideration of liability values) is not a proper application of the asset-based approach.

Second, the AA method involves the discrete revaluation of all of the entity asset and liability accounts. Effectively, this analysis starts with a blank balance sheet. The analyst identifies and values each financial asset account, real estate account, tangible personal property account, other asset account, identifiable intangible asset (or intangible personal property account), and a goodwill account value (positive or negative). Next, the analyst identifies and values each current liability account, long-term liability account, and contingent liability account.

This liability valuation analysis includes any accounts that are changed or created as part of the asset valuation process. The sum of the individual asset values less the sum of the individual liability values indicates the entity's total equity value.

This total equity value is typically concluded on the same standard of value (e.g., fair value, fair market value, investment value) that is used to value the individual asset and liability categories. This total equity value is typically concluded on the same premise of value (e.g., going-concern premise, liquidation premise) that is used to value the individual asset and liability categories. And, the total equity value is typically concluded (at least initially) on a marketable, controlling level of value basis.

If another level of value is sought in the analysis, appropriate valuation adjustments (e.g., discounts) should be identified and quantified. And, the level of valuation adjustments appropriate to the asset-based approach value indication may be different than the level of valuation adjustments appropriate to the income approach or the market approach value indications.

Third, the ANAV method involves a collective or aggregate revaluation of the entity's total equity value. Often in the ANAV method, none of the individual asset and liability accounts are revalued. Sometimes in the ANAV method, the analyst may revalue one or more individual asset accounts.

For example, the entity owner/operator may provide the analyst with a current appraisal of the inventory account or of the owned real estate. And, the analyst can incorporate such appraisals into the ANAV analysis.

The ANAV method aggregate equity revaluation is usually measured by the application of the CEEM. The conclusion of this CEEM analysis is the total amount of appreciation (over the recorded accounting balances) for all of the entity's net assets. Net assets are equal to total assets minus total liabilities.

And, the result of this CEEM analysis is often called "intangible value in the nature of goodwill." This wordy title is deliberately intended to distinguish the analysis result from the goodwill amount that would be concluded from an AA method analysis or from a fair value accounting purchase price allocation.

The intangible value in the nature of goodwill is added to the accounting balance of owners' equity. The sum of that addition indicates the defined value indication of the entity's net asset value. If the result of the CEEM analysis is negative, the result is often called economic obsolescence. The same analytical procedure is then called the capitalization of income loss method ("CILM").

Regardless of the name for the method, the negative intangible value is subtracted from the owners' equity accounting balance. The remainder of the subtraction still indicates the defined value indication of the entity's net asset value.

The valuation variables used in the CEEM (or the CILM) should be consistent with the intended standard of value and the intended premise of value. Like the AA method, the ANAV method (at least initially) concludes a marketable, controlling level of value.

Fourth, the asset-based approach is not the same analysis as the cost approach. The asset-based approach is a generally accepted business valuation approach.

The cost approach is a generally accepted property valuation approach. The cost approach is often used to value some (or many) of the entity's asset categories in the application of the asset-based approach. The cost approach is typically not

"The application of the cost approach . . . is important in determining whether the asset-based approach concludes a going-concern premise of value or a liquidation premise of value."

applicable to the valuation of the entity's liability categories.

In the valuation of an asset holding company, the analyst may rely on the cost approach and/or the market approach to value all of the entity's individual asset categories. In the valuation of an operating company, the analyst may rely on the cost approach and/or the market approach to value some of the entity's individual asset categories.

However, the analyst will usually rely on the income approach to value at least one intangible asset category in the valuation of an operating company. That asset category may be the entity's goodwill asset category.

The application of the cost approach (versus the market approach and/or the income approach) is important in determining whether the asset-based approach concludes a going-concern premise of value or a liquidation premise of value.

As further described below, the primary use of the cost approach to value the entity's tangible or intangible property typically concludes a going-concern premise of value. The primary use of the market approach to value the entity's tangible or intangible property typically concludes a liquidation premise of value.

And, the primary use of the income approach to value the entity's tangible or intangible property may conclude either a going-concern premise of value or a liquidation premise of value—depending on the individual valuation variables selected for the analysis.

Again, the analyst will apply the income approach (and typically the CEEM) in the valuation of at least one intangible asset in order to conclude a going-concern value for an operating company valuation. That income approach CEEM analysis will typically indicate any intangible value in the nature of goodwill for the profitable operating entity. The income approach CILM analysis will typically indicate any economic obsolescence for the less profitable operating entity.

A significant amount of economic obsolescence concluded in the asset-based approach may indicate that the entity has a lower going-concern value than it does a liquidation value. In other words, the highest and best use ("HABU") of that operating entity may be in liquidation (as compared to in continued operation). Of course, legal/contractual constraints and/or current owner desires may prevent the subject operating entity from achieving that HABU.

In terms of when to apply the asset-based approach, analysts should consider all three generally accepted business valuation approaches in the development of every business valuation.

The asset-based approach is particularly applicable in the following circumstances:

1. It may be particularly relevant if the specific valuation assignment is to identify the value of the entity's component asset categories. This situation may occur in a business valuation performed for certain fair value measurement, bankruptcy, property tax, secured lending, and other purposes. For example, a potential acquirer may want an indication of what a purchase price allocation may look like before making an offer to buy the target entity.
2. It may be important for the party relying on the valuation to understand the factors that contribute to the subject entity value. In other words, the decision maker may want to understand the components of value of the subject entity. An asset-based approach analysis could inform the decision maker as to whether the primary entity value driver is real estate, tangible personal property, proprietary technology, trademarks, franchises, customer relationships, a highly skilled workforce, or any other asset category.
3. The analysis may require concluding alternative standards of value or alternative premises of value for the same subject entity. It is possible—but difficult—to adjust income approach and market approach analyses to conclude different standards of value and different premises of value. It is fairly straightforward to apply alternative asset-based approach procedures and variables to conclude different standards of value and different premises of value for the same entity.
4. The asset-based approach may be the default analysis when the income approach and the market approach are not applicable. The income approach may not be applicable when the entity does not have reliable financial statements—either historical or prospective. The market approach may not be applicable when there are not a sufficient number of sufficiently comparable companies.

That is, there may not be either sufficiently comparable publicly traded companies or sufficiently comparable acquired companies. In such instances, the asset-based approach may be the best valuation approach available.

5. The asset-based approach may be applied to provide a mutually supportive value indication to support the conclusions of the income approach and the market approach. One reason to develop any valuation approach is to provide confirmation of the results of the other valuation analyses.
6. Particularly in a litigation or other controversy context, an analyst may develop an asset-based approach simply to provide additional support for the analyst's expert opinion. The asset-based approach may be presented as either a primary or a supplemental value indication. However, it may be difficult for an opposing expert to rebut the asset-based approach valuation if that expert did not perform his or her own asset-based approach analysis.
7. The asset-based approach valuation is particularly applicable if the subject entity would more likely sell in an asset sale deal structure—as compared to a stock sale deal structure. Smaller closely held companies often transfer as a sale of assets (instead of as a sale of stock). In addition, S corporations (and other tax pass-through entities) of all sizes often transfer as a sale of assets (instead of as a sale of stock).
8. The asset-based approach is most applicable when the intended level of value is a marketable, controlling ownership interest level of value. At such a level of value, the entity owner could, in fact, buy or sell all of the assets of the subject entity.

   If the intended level of value is a nonmarketable, noncontrolling level of value, considerable valuation adjustments (i.e., discounts) may be necessary to complete the valuation analysis. And, the analyst may have to consider if a nonmarketable, noncontrolling valuation subject would even have the legal right (or operational ability) to buy or sell all of the assets of the subject entity.

The above discussion summarized many of the instances when an asset-based approach analysis is particularly applicable to the business valuation. Analysts should also realize that there are several caveats related to the development of an asset-based approach analysis.

Some of these analyst caveats include the following:

1. The analyst should be professionally qualified to perform (and explain) all of the procedures required in the development of the asset-based approach. The analyst should be competent to perform all of the asset valuation and all of the liability valuation analyses required to develop the AA method.

   And, the analyst should be competent to perform all of the valuation analyses required to measure intangible value in the nature of goodwill (whether positive or negative) in the ANAV method.

   Analysts sometimes rely on third-party specialists to value certain property categories. However, the analyst concluding the overall business value should be able to explain the work of the third-party specialist. It may not be sufficient for the analyst to naively state "I relied on the third-party specialist" to value an important property category in the asset-based approach analysis.
2. The analyst should understand the standard of value that is applied in the analysis of each asset category. The analyst should be careful to ensure that all asset categories are valued to a consistent standard of value.

   And, the analyst should be careful to ensure that the standard of value applied to all of the asset categories is the same standard of value appropriate to the overall business valuation assignment.
3. The analyst should understand the premise of value that is applied in the analysis of each asset category. The analyst should be careful to ensure that all asset categories are valued to a consistent premise of value. And, the analyst should be careful that the premise of value applied to all of the asset categories is the same premise of value appropriate to the overall business valuation assignment.

   The analyst should understand that different applications of the asset-based approach could conclude either a going-concern premise of value or a liquidation premise of value.
4. The analyst should be professionally competent to understand (and explain) all of the income tax considerations related to

the asset-based approach analysis. The analyst may need to consult a third-party tax specialist to revalue deferred tax asset and liability accounts and to recalculate any income tax liability related to the asset revaluation process.

5. The analyst should be professionally competent to perform (and explain) the valuation of the subject entity liability accounts (both long-term debts and contingent liabilities) related to the asset-based approach analysis. The analyst should consider that there may be liability accounts (including tax liability accounts) that are created as a result of the application of the asset-based approach.
6. The analyst should be professionally competent to quantify (and explain) any valuation discounts that should be applied in the asset-based approach analysis. These discounts may include both entity-level discounts (e.g., key employee dependence, key customer dependence) and security-level discounts (e.g., DLOC, DLOM).

   And, the analyst should understand that the magnitude of the security-level discounts may be different for an asset-based approach analysis than for an income approach or a market approach analysis.
7. The analyst should consider that the asset-based approach typically concludes a marketable, controlling ownership interest level of value. The analyst should consider if that approach is applicable (even with the application of valuation discounts) to estimate a nonmarketable, noncontrolling level of value within the context of a particular valuation assignment.
8. The analyst should understand that an asset-based approach analysis is based on the principle that either (a) the business owner/operator will buy (recreate) all of the subject entity assets or (b) the business owner/operator will sell (liquidate) all of the subject entity assets.

   The analyst should consider whether either principle is appropriate within the context of the particular valuation assignment. That is, the analyst should consider if there are legal, contractual, regulatory, or other issues that would prohibit the business owner/operator from either buying (recreating) or selling (liquidating) all of the subject entity assets.

Going-Concern Valuations versus Liquidation Valuations

As mentioned above, the asset-based approach can conclude a going-concern value or a liquidation value. In other words, the asset-based approach can conclude a value in continued use or a value in exchange.

And, within the value in exchange (or liquidation) premise of value, the asset-based approach can conclude either an orderly disposition (or sale) of the entity assets or a forced disposition (or sale) of the entity assets.

That is, the analysis can assume that the entity assets are sold individually but with either:

1. a normal marketing exposure to the most efficient secondary market or
2. a less than normal marketing exposure to a fast sale secondary market.

Which premise of value the analysis concludes is not a function of the analyst's intention. And, the concluded premise of value is not based on the analyst's (or the client's) assumption. In other words, legal counsel (and other parties that rely on business valuations) often believe: the analyst performed an asset-based approach valuation of the subject entity; therefore, let's just assume that the analysis conclusion is a going-concern value indication. That belief is unsupported.

Again, the premise of value concluded by the asset-based approach is not based simply on the analyst's (or the counsel's) assumption. Rather, the premise of value concluded by the asset-based approach is influenced by:

1. the selection of the valuation approaches and methods applied to value the entity's individual asset categories and individual liability categories and
2. the selection of the specific valuation variables and valuation procedures applied (within the selected approaches and methods) to value the entity's individual asset categories and individual liability categories.

This valuation principle seems elusive to many analysts and to legal counsel. However, this valuation principle could not be more straightforward.

If the analyst applies approaches, methods, and procedures that conclude the going-concern value for each asset category, then the asset-based approach analysis will conclude a going-concern value for the subject entity.

If the analyst applies approaches, methods, and procedures that conclude the liquidation value of each asset category, then the asset-based approach analysis will conclude a liquidation value for the subject entity.

The confusion related to the above basic principle may be caused by the fact that most business valuation analysts (and most legal counsel) are not property valuation analysts. The business valuation analysts (and legal counsel) often rely on the work of third-party valuation specialists to conclude the value of the subject entity's inventory, real estate, machinery and equipment, intellectual property, and so on.

The property appraiser's report may conclude fair market value or market value or some other stated standard of value. The business valuation analyst (and legal counsel) may have seen a standard of value definition that included words like "willing buyer and willing seller" and "market participant." And, the analyst (and counsel) just assumed that the property appraisal conclusion was a going-concern value indication.

The analyst (and the counsel) did not investigate the property appraiser's assumptions regarding how the "willing buyer and willing seller" or the "market participants" would get together and transact the sale of the subject asset category. Would all of the subject entity's assets be sold at the same time, say as part of a business merger or acquisition?

That transactional premise seems unlikely if the property appraiser was tasked with appraising one asset category (say real estate) only. Would all of the subject entity's assets be sold piecemeal, with each property category sold individually at its highest price after its own market exposure period? Would all of the subject entity's assets be sold, but in a transaction where all of the property categories have to be sold at the same time?

All of the above transactional scenarios could involve "a willing buyer" and "a willing seller" for each property category. However, each set of transactional assumptions would conclude a different value for the same property category. And some of these "market value" conclusions could be considered going-concern premise of value indications and some of these conclusions could be considered liquidation premise of value indications.

Experienced property appraisers appreciate the subtle (but quantitatively significant) difference between these premise of value transactional assumptions. Even experienced business valuation analysts (and legal counsel) may not appreciate these property appraisal subtleties. Therefore, the valuation analyst (and the legal counsel) should not assume that the asset-based approach analysis concludes the intended level of value.

When the Asset-Based Approach Concludes a Going-Concern Value

Of course, the asset-based approach concludes a going-concern business value when the property valuation approaches applied conclude a going-concern value for each of the entity's asset categories.

So, the primary issues in the application of the asset-based approach are as follows:

1. Which property valuation approaches and methods conclude a going-concern value for each asset category?
2. Which property valuation approaches and methods conclude a liquidation value for each asset category?

Generally, the application of cost approach property valuation methods indicates a going-concern value for the subject asset categories.

Generally, the application of market approach property valuation methods indicates a liquidation value for the subject asset categories.

And, generally, the application of income approach property valuation methods may indicate either a going-concern value or a liquidation value for the subject asset categories. Accordingly, the selection of the individual valuation variables will determine whether the income approach indicates going-concern value or a liquidation value.

Accordingly, the remainder of this section of the discussion will focus on the application of the cost approach and the income approach within the context of developing asset-based approach a going-concern value indications.

The property valuation cost approach is based on the economic principle of substitution. That is, the value of an individual property is influenced by the cost required to obtain a substitute property. From a business buyer's perspective, a buyer is faced with a make versus buy decision. That is, the buyer will not pay more to buy an asset category than the amount of cost that would be required for the buyer to make (i.e., recreate) that asset category.

The seller looks at the valuation problem from an opposite, but similar, perspective. The business seller would not sell the subject asset for a price less than the amount of cost that the buyer would have to spend to make (i.e., recreate) that asset.

"[A]ll cost approach analyses should consider the various components of depreciation and obsolescence required to convert the cost metric into a value metric."

There are various cost components (e.g., direct costs, indirect costs) that are included in a cost approach analysis. There are various cost metrics (e.g., replacement cost new, reproduction cost new) that may be measured in a cost approach analysis. And, all cost approach analyses should consider the various components of depreciation and obsolescence required to convert the cost metric into a value metric.

From the business owner/operator's perspective, all cost approach analyses answer pretty much the same question. If my business entity did not already own all of its component assets, how much would it cost to replace all of the entity's asset categories? That cost approach analysis would include all of the costs required to get the replacement asset in place and ready to operate.

That is, the cost approach analysis quantifies the amount of cost required to reassemble a going-concern bundle of fully operational assets. Considered another way, the cost approach measures the amount of cost required to reassemble the income-producing capacity of the entity's current bundle of operating assets.

Accordingly, the cost approach indicates a going-concern value for the entity's assets. In the cost approach, the business owner is not trying to sell off the entity's assets. In contrast, the business owner is trying to buy (i.e., reassemble) all of the entity's assets. The cost approach analysis answers the question: how much would it cost to assemble all of the subject entity's assets in place, ready to operate, and ready to generate income?

Therefore, the cost approach to property valuation does not consider any value reductions for sale make-ready expenses, sale holding period expenses, sale commission expenses, or income taxes related to the property sale. That is because the current business is not selling any of its property. Rather, theoretically, the current business is buying (i.e., replacing) all of its property. And, there are no selling expenses incurred—or income taxes due—when a business buys property.

In an asset-based approach business valuation analysis, the cost approach may be particularly applicable in the valuation of either fungible tangible assets or contributory (sometimes considered "back room") intangible assets. For example, the cost approach is often used to conclude the going-concern value of an entity's inventory, real estate, and machinery and equipment. And, the cost approach is often used to conclude the going-concern value of an entity's computer software, proprietary formulas and technical documentation, databases, customer lists and other trade secrets, and assembled workforce.

The property valuation income approach is based on the economic principle of expectation. That is, the value of the individual property is influenced by the present value of the future income that can be earned from the operation of that property.

The determination of whether the income approach indicates a going-concern value or a liquidation value depends on the answer to the question: who is the assumed owner of the subject property?

The property valuation income approach is based on the present value of the future income generated from the operation of the subject property or asset category. That income projection is present valued at a risk-adjusted present value discount rate.

The important valuation variables included in the income approach analysis include the following:

1. The amount of the income projection
2. The term of the income projection
3. The present value discount rate

The individual variables considered in the amount of the income projection include the following:

1. The level of (and growth rate of) revenue associated with the property
2. The level of (and margin of) profitability associated with the property
3. The amount of any investment (e.g., working capital, capital expenditures) required to support the income projection
4. The level (and rate) of income taxes associated with the income projection

The individual variables considered in the term of the income projection include the following:

1. The remaining useful economic life ("UEL") of the property
2. The shape and slope (usually, the decay rate) of the UEL curve

The individual variables considered in the discount rate (or in the direct capitalization rate) analysis include the following:

1. The subject property cost of capital components
2. The possibility of a residual value or a terminal value period
3. Any income growth rate (positive or negative) in that residual value

In selecting each one of the above-listed income approach variables, the analyst (implicitly or explicitly) makes the following decision:

1. Do I select the valuation variables that are appropriate to the current business owner/operator—that is, variables that assume a continuation of the current ongoing business operations? or
2. Do I select valuation variables that are appropriate to the typical (or specific) market participant, meaning the next business owner/operator—that is, variables that assume a change of ownership and a change of operation due to a sale of the subject business entity?

So, if the analyst selects the first above-listed option (i.e., valuation variables based on the current owner/operator), the income approach analysis will indicate a going-concern value for the subject property. This analysis will indicate the value in continued use of the property category—as part of the current going-concern business operations.

If the analyst selects the second above-listed option (i.e., valuation variables based on the next market participant owner/operator), then the income approach will indicate a liquidation value for the subject property. This value should not be construed as a forced or an involuntary liquidation value.

Rather, this value simply assumes that the subject property is sold separately from the rest of the subject entity asset categories. The other business assets are left behind (or, likely, sold separately in an orderly disposition), but the subject property is sold to a new buyer. This analysis will indicate the value in exchange of the property category—that is, the value to the new buyer—but not the value as part of the current ongoing business operation.

In performing the income approach property valuation, the analyst could select growth rates, profit margins, income tax rates, UEL curves, discount rates, and direct capitalization rates that would be appropriate to the subject business entity. The application of such selected valuation variables would produce a going-concern value indication.

Such an analysis would indicate the value of the subject asset category as part of the subject going-concern business entity. That value would measure the contribution of the individual asset category to the current business entity. The asset category continues to be owned by the subject entity. If there is an assumed sale transaction, the entire business enterprise would sell as one collective unit of operating assets.

In performing such a property valuation, the analyst does not have to consider holding period expenses, make-ready expenses, sales commission, or capital gains taxes. The individual property is not sold separately, so these sale-related expenses are not incurred and these sale-related liabilities are not created.

In an asset-based approach analysis, the income approach may be particularly applicable to tangible assets or intangible assets that directly generate a measurable income stream. Such tangible asset examples may include income-producing or rental property real estate, such as hotel, commercial

office buildings, and residential apartment complexes. Such intangible asset examples may include customer relationships, franchises, licenses, trademarks, copyrights, and development or commercialization agreements.

Goodwill and Economic Obsolescence

In the going-concern application of the asset-based approach, analysts typically apply an income approach analysis to value at least one intangible asset.

In the AA method, analysts typically use a multiperiod excess earnings method ("MEEM") analysis or a CEEM analysis to identify and value any residual goodwill.

In the ANAV method, analysts typically use the CEEM analysis to collectively value all of the entity's intangible value in the nature of goodwill.

The use of at least one income approach analysis is an important procedure in the going-concern application of the asset-based approach. This procedure quantifies any residual intangible business value owned by the subject entity after appropriate value components have been assigned to all other tangible assets and identifiable intangible assets.

This procedure is intended to prove that the value of the subject entity is at least equal to the value of the sum of its parts. That is, the value of the business entity is equal to (or greater than) the sum of the individual values of the component tangible assets and identifiable intangible assets.

This additional value is measured as the present value of any excess income not attributable to the entity's tangible assets and identifiable intangible assets. The present value of this excess income is usually referred to as goodwill.

The other reason why analysts typically apply an income approach analysis to at least one intangible asset is because such a procedure is a test for economic obsolescence. This procedure is applicable when the analyst applies a MEEM to value, say, a franchise, a license, or customer relationships. And, this procedure is applicable when the analyst applies a CEEM to measure intangible value in the nature of goodwill.

The point is that either the MEEM analysis or the CEEM analysis sometimes indicates that there are no excess earnings being generated at the subject entity. In fact, there may be an income loss being generated at the subject entity. From a valuation perspective, an income loss occurs when the entity earns an amount of income that is less than a fair rate of return on the value of its tangible assets and identifiable intangible assets.

If the entity is earning an income loss based on the estimated value of its assets, then the analyst capitalizes this income loss. This procedure is called the capitalization of income loss method ("CILM"), and it is a generally accepted method to measure economic obsolescence within a cost approach property appraisal.

The CILM estimate of economic obsolescence is sometimes thought of as negative goodwill. However, since an entity cannot record a negative goodwill balance, the analyst will decrease the indicated value of the entity's other assets—until the negative goodwill is eliminated.

That is, the analyst adjusts the value of all entity assets valued using the cost approach for this amount of economic obsolescence. This adjustment would apply to all asset categories valued by reference to the cost approach—both tangible assets and identifiable intangible assets.

When the value of these assets is decreased, the amount of income needed to provide a fair rate of return on those assets is also decreased. When the value of the cost approach assets is sufficiently decreased by this recognition of economic obsolescence, the income loss is reduced to zero. At that point, the entity experiences no excess earnings, but the subject entity experiences no income loss either. There is no positive goodwill value to recognize, but there is no negative goodwill indication either.

Therefore, the application of an income approach method (say a MEEM or a CEEM) is an important procedure for two reasons:

1. It identifies and quantifies any positive intangible value associated with any excess income (that is not associated with any other tangible asset or identifiable intangible asset).
2. It identifies and quantifies any economic obsolescence. Such an economic obsolescence indication indicates that an adjustment is needed to the appraised value of the entity's other assets—in order to avoid overstating the net asset value of the subject business entity.

When the Asset-Based Approach Concludes a Liquidation Value

Of course, the asset-based approach concludes a liquidation business value when the property valuation

approaches applied conclude a liquidation value for each of the entity's asset categories.

Generally, the application of market approach property valuation methods indicates a liquidation value for the subject asset categories.

Depending on the individual valuation variables applied, the income approach property valuation methods indicate a liquidation value for the subject asset categories. This premise of value is concluded when the selected valuation variables relate to how the next property owner will operate the subject asset category. So, the analyst may select projected growth rates, UEL curves, revenue levels, expense levels, profit levels, investment levels, discount rates, and direct capitalization rates that relate to a "market participant" next owner.

Such valuation variables will indicate a liquidation value for the subject tangible asset or subject intangible asset. In contrast, the analyst may select valuation variables that reflect how the current owner/operator will operate the property. Such valuation variables will indicate a going-concern value for the subject tangible asset or subject intangible asset.

As described above, the market approach or the income approach will conclude the price the current owner/operator business entity will receive when it sells the asset category to a new owner/operator business entity. Again, within the asset-based approach context, the term liquidation valuation premise should not imply either a forced liquidation sale or an involuntary sale.

Rather, this valuation premise assumes that each asset category (or bundle of assets) is sold separately—in an orderly disposition and with a normal exposure period to the market—in order to maximize the sale price. The asset category may be (and likely will be) sold between one going-concern business entity and another going-concern business entity.

However, this valuation premise assumes that the asset categories are sold separately from each other. This valuation premise does not necessarily assume that the entire subject business enterprise is sold, as one collective bundle of properties, in either a public stock offering or a merger and acquisition transaction.

Since the market approach and the market-participant-based income approach assumes an asset sale, the analyst has to consider that same process in the asset category valuation.

For example, the analyst should consider the following factors when estimating the value contribution of the asset category sale to the subject entity:

1. The timing of the asset sale; will it occur immediately? in six months? in two years?
2. Any contractual, legal, or other restrictions associated with the timing of (or the ability to complete) the asset sale
3. Any holding period expenses during the market exposure period; these expense categories may include interest expense, insurance expense, property tax expense
4. Any make-ready costs to get the asset category ready for sale; these expense categories may include R&D expense, deferred maintenance expense, capital expenditures
5. Any sale-related expenses; these expense categories may include legal fees, brokerage fees, sales commissions
6. Any tax-related expenses; these expense categories may include capital gains taxes—that are either payable at the time of the sale or deferred to a future time period

In the liquidation premise of the asset-based approach, the analysis ultimately measures the contribution of the entity's cash balance related to the sale of the entity's asset categories. Of course, the asset selling price is the amount the buyer would pay to the seller for that property category. However, the value contribution to the asset-based approach business valuation is the asset selling price—less any expenses incurred or liabilities created as a result of the property sale.

In other words, the value contribution of the property category sale to the business entity is the amount of the net proceeds available for distribution to the business entity owners.

This issue illustrates an important quantitative difference between the going-concern-based asset-based approach and the liquidation-based asset-based approach.

The going-concern analysis applies the cost approach or an owner/operator income approach to value the subject entity asset categories. In this asset-based approach analysis, the subject entity buys or recreates all of its asset categories. There are no asset selling expenses or related liabilities. This is because there are no asset sales.

In contrast, the liquidation analysis applies the market approach or the market participant income approach to value the subject entity asset categories. In this asset-based approach analysis, the subject entity sells all of its asset categories. The analyst has to consider asset selling expenses and liabilities. This is because such expenses will be

"[T]he selection of which premise of value—and which property valuation approaches and methods—to apply is an important consideration in any asset-based approach business valuation analysis."

incurred and such liabilities will be created when the subject entity assets are sold.

Accordingly, the analyst (and the legal counsel and any other party relying on the valuation) should expect to conclude different value indications from the two different applications of the asset-based approach to business valuation.

Therefore, the selection of which premise of value—and which property valuation approaches and methods—to apply is an important consideration in any asset-based approach business valuation analysis.

The Future Sale of the Entity Assets

In some liquidation premise applications of the asset-based approach, the analyst has to assume a future sale of some (or all) of the subject entity asset categories. This assumption regarding a future (and not a current) sale of subject entity asset categories may be appropriate for several reasons, including the following:

1. The valuation subject is a noncontrolling ownership interest. The ownership interest cannot initiate the sale of any of the subject entity assets. The analyst may have to project when a control event is likely to occur. In other words, the analyst may have to project when the current controlling owner would intend to initiate a control event—and sell the subject entity or the subject entity asset categories.
2. There may be a partnership agreement, a shareholder agreement, and LLC operating agreement, or some other organizational document that restricts the sale of substantially all of the entity assets until some future date (e.g., the expiration of the partnership or LLC).
3. There may be regulatory, legal, contractual, or other restrictions on the sale of substantially all of the entity assets. The analyst may have to assume that the entity asset sale will not occur until the franchise, license, loan agreement, or other restriction expires.
4. There may be a normal period of time required for the subject entity to obtain shareholder, director, regulatory, or other agreements or approvals to sell substantially all of the entity's assets.

If the valuation subject is a nonmarketable, noncontrolling ownership interest, the analyst should seriously consider if the asset-based approach is applicable to the subject assignment. The application of the asset-based approach is based on the premise that the subject interest owner can either buy (recreate) the entity assets or sell (liquidate) the entity assets.

If the subject interest owner cannot influence such a control event—or if such a control event is not reasonably foreseeable—then the application of the asset-based approach may not be supportable.

If such a control event is foreseeable—but not for a lengthy time period, then the analyst will have to adjust the analysis to accommodate that expected delay in the control event.

For example, let's assume that the sale of substantially all of the subject entity assets cannot occur until the controlling partnership agreement expires. If the analyst still elects to apply the asset-based approach, the analyst may have to estimate the selling price of the entity assets at a time period 20 years in the future.

One procedure the analyst could use is to start with a contemporaneous appraisal of the subject entity assets. Then, the analyst could apply a trend factor to represent the net change in the subject asset prices for the prospective 20-year time period. That trend factor could represent the expected compound annual growth rate ("CAGR") or compound annual decline rate ("CADR") in the value of the subject asset category.

Of course, that CAGR (or CADR) should be a "net" trend factor. That is, the selected factor should represent the expected appreciation in the price of the subject asset, net of any expected depreciation in the value of the subject assets.

For example, if the analyst expected a particular asset category price to appreciate at the rate of 5 percent per year but also depreciate at the rate of 2 percent per year, then the analyst may apply a 3 percent "net" CAGR to the current value of the subject assets. In this example, let's say the current value of the subject entity asset category is $10,000,000.

At a 3 percent CAGR, the future value of the asset category at the end of 20 years would be:

Present Value × Future Value Interest Factor = Future Value

$10,000,000 × 1.8061 = $18,061,000

The 1.8061 future value interest factor represents the future value of 1 for 20 years compounded at a 3 percent annual interest rate.

Of course, the above calculation tells the analyst the expected value of the asset category 20 years into the future. The analyst still needs to estimate the value of that asset category today—as of a current valuation date. So the analyst will have to present value the t = 20 years value in order to conclude a value that could be incorporated into a contemporaneous asset-based approach analysis.

Let's assume that the analyst selects a 10 percent present value discount rate as the discount rate applicable to any income approach asset valuations included in the asset-based approach analysis.

In that case, the analyst can calculate the valuation date present value of the subject entity future value using the following calculation:

Future Value × Present Value Interest Factor = Present Value

$18,061,000 × 0.1486 = $2,090,000

The 0.1486 present value interest factor represents the present value of 1 for 20 years discounted at a 10 percent discount rate.

The above calculation tells the analyst that the subject asset category could be sold today for $10,000,000 if, in fact, the subject entity assets could be sold today. If the illustrative subject partnership cannot be terminated for 20 years and the subject ownership interest cannot initiate an asset sale control event, the interest holder will have to wait 20 years to realize the proceeds from the asset sale.

Based on expected value appreciation rates (net of any depreciation), the asset category is expected to sell for $18,061,000 in 20 years. However, the present value of the asset sale proceeds is only $2,090,000 as of the contemporaneous valuation date.

Therefore, in this illustrative example, the analyst would use the $2,090,000 present value as the subject asset category value in the asset-based approach business valuation analysis. Therefore, that asset value would reflect an almost 80 percent price discount—compared to the $10,000,000 expected current sale price of the subject asset category.

That implicit price discount would reflect the impact of the interest holder not being able to sell the entity's asset group for the next 20 years. One way to consider that valuation impact is that this illustrative asset-based approach analysis reflects an implicit DLOC of nearly 80 percent.

And, the above calculation does not yet reflect the impact of any asset selling expenses or any income tax liability associated with the future sale of appreciated property. The asset-based approach consideration of holding period costs and selling expenses is discussed next.

Holding Period Costs and Selling Expenses

When the analyst applies the market approach to value the subject entity assets in an asset-based approach analysis, the analyst will consider holding period costs and make-ready expenses. Such transactional expenses are not a relevant factor if the analyst applies the cost approach to conclude a going-concern value for the subject entity assets.

However, such transactional expenses are a relevant consideration when the analyst applies the market approach to conclude a liquidation value for the subject entity assets.

The category of holding period costs typically include at least two types of expenses:

1. Ownership expenses during the expected sale period – Such ownership expenses may include property maintenance expense, property taxes, property insurance expense, and interest on the property investment.
2. Make-ready expenses – Such expenses may include any expenses necessary to prepare the subject entity asset category for sale at the expected selling price.

The category of selling expenses typically includes at least two types of expenses:

1. Brokerage fees or sales commission – This type of expense is usually paid to an intermediary who arranges for the asset sale.
2. Transfer fees – This type of expense may include transfer taxes, registration fees, and transaction-related legal expenses.

These holding period costs and selling expenses may be subtracted from the expected selling price of

the subject entity asset category. After all, the asset-based approach is based on the net proceeds of the asset category sale to the business entity. Often, the estimated holding period costs and selling expenses are recognized as either a contra asset or a liability in the asset-based approach analysis.

With this form of presentation, any party relying on the valuation can observe both:

1. the expected sale price of the asset category and
2. the expected expenses incurred in order to achieve that asset sale price.

Of course, the subject entity will not incur selling expenses until the asset category is sold. So, if the business assets cannot be sold for 20 years (as in the previous example), the subject entity will not incur the selling expense until 20 years into the future.

Of course, that same entity would have to incur 20 years of holding period costs (e.g., insurance, interest, property tax) until the subject assets are sold.

Income Tax Liability

When the analyst applies the market approach to value the subject entity assets in an asset-based approach analysis, the analyst will consider any income tax expense or liability (i.e., deferred expense) that is created as a result of the asset sale. Such an income tax liability is not a relevant factor if the analyst applies the cost approach to conclude a going-concern value for the subject entity assets.

However, such a transactionally created liability is a relevant consideration when the analyst applies the market approach to conclude a liquidation value for the subject entity assets.

In order to estimate the income tax liability associated with the asset category sale, the analyst will need to know the following:

1. The expected asset selling price
2. The current owner's income tax basis for the asset
3. Whether the current owner has claimed a depreciation or amortization income tax deduction related to the subject asset

If the expected selling price is greater than the tax basis of the asset, there will be a taxable gain associated with the asset sale. Normally that gain would be recognized by the subject entity seller as a capital gain. If the subject entity has claimed either a depreciation or amortization deduction associated with the asset, that portion of the gain on the sale will be recognized as ordinary income—instead of as a capital gain.

Technically, that portion of the gain will be recognized as the recapture of the previously claimed depreciation or amortization expense deduction Any gain above the amount of the depreciation or amortization recapture will be recognized as a capital gain.

Of course, there are no transaction-related income tax consequences until there is an asset sale transaction. So if the asset-based approach analysis considers a future asset sale (say, due to a contractual restriction), then the income tax liability will also be created in the future.

However, absent contractual, legal, or other restrictions on asset sales, the market approach analysis assumes that the subject assets are sold fairly quickly—based on a reasonable exposure to their appropriate secondary market.

That is, the cost approach typically assumes that the subject entity assets are bought right away. And, the market approach typically assumes that the subject entity assets are sold right away. So, in the market approach application of the asset-based business valuation approach, the income tax liability is also created right away.

Absent shareholder agreement or other contractual restrictions (or level of value considerations), the intention of the actual business owners (to sell or not to sell) does not impact the amount of the income tax liability.

The asset-based approach typically contemplates a business sale transaction between a typical buyer and a typical seller—and ignores the intention of the current business owner/operator.

Illustrative Example of a Going-Concern Valuation

This section presents a simplified application of the asset-based approach to business valuation. Let's assume that the analyst is retained to estimate the value of the Alpha Corporation ("Alpha") as of June 30, 2018. To simplify the example, let's assume that the valuation objective is a marketable, controlling ownership interest in 100 percent of the common stock of Alpha. And, let's assume that Alpha only has one class of equity outstanding.

Considering the level of value that is the subject of the assignment, the analyst decided to apply the

asset-based approach as one of the business valuation approaches developed in the analysis.

In this example, the analyst decided to apply the cost approach to value most of the Alpha individual asset categories. That decision may have been influenced by the quantity and quality of available data or by other considerations. Nonetheless, the analyst understands that the inclusion of cost approach value indications for each asset category will conclude a going-concern premise of value for the Alpha business entity.

To ensure that the analysis encompasses all of the entity's intangible value in the nature of goodwill—and to test for the existence of any economic obsolescence—the analyst will apply the CEEM as the last component of the asset-based approach business valuation.

In a consolidated format (for illustrative purposes), the Alpha GAAP-based balance sheet is presented in Exhibit 1. Since this balance sheet is prepared in compliance with U.S. GAAP, the account balances are presented on a historical cost basis.

Based on the availability of and access to data, and based on the cooperation provided by Alpha management, the analyst could perform the AA method. That is, the analyst had the ability (and the time and the budget) to individually value each Alpha asset category. Alternatively, the analyst could have performed the ANAV method to collectively revalue all of the Alpha net assets.

As part of the valuation process, the analyst considered the Alpha current asset accounts. The analyst concluded that the accounting balances of the company's cash, inventory, and receivable accounts fairly reflected the current values for these asset categories.

The analyst relied on third-party specialists to appraise the Alpha real estate and tangible personal property. The analyst worked with both the real estate appraiser and the equipment appraiser in order to:

1. understand their asset appraisal procedures and
2. ensure that those procedures were consistent with the analyst's overall business valuation process.

Both the real estate appraiser and the equipment appraiser applied the cost approach and, specifically, the replacement cost new less depreciation ("RCNLD") method to value their respective asset categories.

The real estate appraiser concluded that the current value of the Alpha real estate is $50 million. And, the equipment appraiser concluded that the current value of the Alpha personal property is $30 million.

Both of these current value conclusions reflect the RCNLD for the subject asset categories. The analyst concluded that neither RCNLD analysis included an allowance for property-specific economic obsolescence.

The analyst next identified and valued all of the Alpha intangible assets. The Alpha balance sheet recorded the historical cost of purchased computer software.

The analyst's due diligence investigations revealed that Alpha owns and operates the following intangible asset categories:

1. Computer software, including purchased and internally developed software, software customization during installation, and automated databases (collectively, "software")
2. Proprietary technology, engineering drawings and technical documentation, and other trade secrets documentation (collectively, "technology")

Exhibit 1
Alpha Corporation
Statement of Financial Position
As of June 30, 2018
(in $000s)

Assets		Liabilities and Owners' Equity	
Current Assets	10,000	Current Liabilities	10,000
Plant, Property, and Equipment:		Long-Term Debt:	
Real Estate (at cost)	40,000	Note Payable	20,000
Tangible Personal Property (at cost)	60,000	Mortgage Payable	20,000
Less: Accumulated Depreciation	(40,000)	Total Long-Term Debt	40,000
Plant, Property, and Equipment, Net	60,000		
		Owners' Equity:	
Intangible Assets:		Capital Stock	10,000
Purchased Computer Software	10,000	Retained Earnings	20,000
(cost less accumulated amortization)		Total Owners' Equity	30,000
Total Assets	80,000	Total Liabilities and Owners' Equity	80,000

3. Procedures manuals, safety manuals, training manuals and documentation, employee manuals, and the like (collectively, "documentation")
4. Trademarks, trade names, service marks, service names, and domain names (collectively, "trademarks")
5. A trained and assembled workforce of management and skilled employees (collectively, "workforce")

The analyst could value each of these intangible asset categories independently. To simplify this illustrative example, let's assume that the analyst valued all of these intangible assets collectively. The analyst used the cost approach and the RCNLD method to value all of these intangible asset categories. Before consideration of any economic obsolescence, the analyst concluded an intangible asset current value of $20 million.

Next, the analyst considered the Alpha current liability accounts. The analyst concluded that the account balances for these liabilities represent a fair indication of the current value of these liabilities.

Next, the analyst considered the Alpha long-term liabilities. The analyst concluded that the terms of the note payable were consistent with current market terms, so no valuation adjustment was necessary. The analyst noted a particularly low interest rate in the commercial property mortgage. The analyst concluded that the mortgage holder would allow Alpha to pay off the commercial mortgage for a single payment of $18 million.

As part of the due diligence process, the analyst did not identify any other contingent or other liabilities to be included in the valuation.

The preliminary value indications from the above-mentioned analyses are summarized in Exhibit 2.

Before the asset-based approach analysis is complete, the analyst has to look for either (1) intangible value in the nature of goodwill or (2) the existence of economic obsolescence.

Let's assume that the analyst concluded that a fair rate of return on the Alpha net assets (i.e., total assets minus current liabilities) was 12.5 percent. Let's assume that the analyst calculated the 12.5 percent fair rate of return as the Alpha after-tax weighted average cost of capital ("WACC").

First, let's assume that the analyst concluded that Alpha will generate a normalized level of after-tax operating cash flow of $13.5 million. Based on the above assumptions, the analyst can perform the CEEM analysis presented in Exhibit 3.

The $100 million net asset value in Exhibit 3 represents the $110 million total asset value minus the $10 million current liability value, both from Exhibit 2.

In the above analysis, the analyst assumes a 0 percent annual rate of change in the Alpha excess earnings. Therefore, the Alpha direct capitalization rate equals the Alpha WACC (i.e., 12.5% WACC – 0% long-term growth rate = 12.5% direct capitalization rate).

Based on the above CEEM analysis, the analyst will complete the Alpha asset-based approach business valuation as presented in Exhibit 4.

Second, let's assume that the analyst instead concluded that Alpha will generate a normalized level of after-tax operating cash flow of only $10 million. Based on this revised normalized income assumption, the analyst can now perform the CEEM (or CILM) analysis presented in Exhibit 5.

In the analysis in Exhibit 5, the analyst again assumed that the Alpha direct

Exhibit 2
Alpha Corporation
Asset-Based Approach Business Valuation
Preliminary Value Indication
As of June 30, 2018
(in $000s)

Assets		Liabilities and Owners' Equity	
Current Assets	10,000	Current Liabilities	10,000
Plant, Property, and Equipment:		Long-Term Debt:	
Real Estate	50,000	Note Payable	20,000
Tangible Personal Property	30,000	Mortgage Payable	18,000
Total	80,000	Total Long-Term Debt	38,000
Intangible Assets:		Owners' Equity	62,000
Identifiable Intangible Assets	20,000		
Total Assets	110,000	Total Liabilities and Owners' Equity	110,000

capitalization rate equals the Alpha WACC. This assumption implies a 0 percent change in the expected income loss going forward.

The above CILM analysis indicates an economic obsolescence percentage rate of 20 percent, calculated in Exhibit 6.

Accordingly, based on the 20 percent economic obsolescence percentage, the analyst will have to complete the respective asset category RCNLD valuation analyses as presented in Exhibit 7.

Exhibit 8 presents the analyst's final business value conclusion, based on the application of the asset-based approach. This business value conclusion incorporates the assumed valuation variable related to the recognition of an amount of income loss—and the resulting economic obsolescence.

Exhibit 3
Alpha Corporation
Intangible Value in the Nature of Goodwill
Capitalized Excess Earnings Method
As of June 30, 2018
(in $000s)

	Net Asset Value (from Exhibit 2) (total assets minus current liabilities)	100,000
×	Fair Rate of Return on Net Assets (WACC)	12.5%
=	Fair Return on Net Assets (required level of income)	12,500
	Normalized Operating Cash Flow (actual income)	13,500
−	Fair Return on Net Assets (required level of income)	12,500
=	Excess Income	1,000
÷	Direct Capitalization Rate	12.5%
=	Intangible Value in the Nature of Goodwill	8,000

This value adjustment is due to the assumed combination of (1) $10 million of Alpha normalized operating cash flow and (2) $100 million Alpha net asset value—based on the cost approach valuation of the individual asset categories.

Exhibit 8 reflects the consideration of economic obsolescence in the cost approach valuation of the Alpha individual asset categories. Of course, the conclusion of the CILM analysis indicates that there is no intangible value in the nature of goodwill (based on the $10 million expected operating cash flow level).

In summary, the historical cost (or accounting net book value) of the Alpha total owners' equity was $30 million. The analyst used the asset-based business valuation approach and the cost property valuation approach to value the Alpha equity based on a going-concern premise of value.

In the first scenario (in which Alpha generates excess earnings and has a positive goodwill value), the value of 100 percent of the equity, on a marketable, controlling ownership interest basis, is $70 million.

Exhibit 4
Alpha Corporation
Asset-Based Approach Business Valuation
Final Value Conclusion
As of June 30, 2018
(in $000s)

Assets		Liabilities and Owners' Equity	
Current Assets	10,000	Current Liabilities	10,000
Plant, Property, and Equipment:		Long-Term Debt:	
Real Estate	50,000	Note Payable	20,000
Tangible Personal Property	30,000	Mortgage Payable	18,000
Total	80,000	Total Long-Term Debt	38,000
Intangible Assets:		Owners' Equity	70,000
Identifiable Intangible Assets	20,000		
Intangible Value in Nature of Goodwill	8,000		
Total	28,000		
Total Assets	118,000	Total Liabilities and Owners' Equity	118,000

Exhibit 5
Alpha Corporation
Economic Obsolescence
Capitalization of Income Loss Method
As of June 30, 2018
(in $000s)

	Net Asset Value (from Exhibit 2) (total assets minus current liabilities)	100,000
×	Fair Rate of Return on Net Assets (WACC)	12.5%
=	Fair Return on Net Assets (required level of income)	12,500
	Normalized Operating Cash Flow (actual income)	10,000
–	Fair Return on Net Assets (required level of income)	12,500
=	Income Loss	(2,500)
÷	Direct Capitalization Rate	12.5%
=	Economic Obsolescence (capitalization of income loss)	(20,000)

Exhibit 6
Alpha Corporation
Economic Obsolescence Percentage
As of June 30, 2018
(in $000s)

	Tangible Assets and Intangible Assets Valued by Application of the Cost Approach—RCNLD Indication (from Exhibit 2)	100,000
÷	Amount of Economic Obsolescence (from Exhibit 5)	(20,000)
=	Indicated Economic Obsolescence Percentage	20%

Exhibit 7
Alpha Corporation
Application of Economic Obsolescence
to Tangible and Intangible Asset Cost Approach Indications
As of June 30, 2018
(in $000s)

Asset Category	Cost Approach Value Indication (before economic obsolescence)	Less: Economic Obsolescence Percentage	Final Cost Approach Value Indication after Economic Obsolescence Allowance
Plant, Property, and Equipment:			
Real Estate	50,000	20%	40,000
Tangible Personal Property	30,000	20%	24,000
Total	80,000		64,000
Intangible Assets:			
Identifiable Intangible Assets	20,000	20%	16,000
Total	20,000		16,000

Exhibit 8
Alpha Corporation
Asset-Based Approach Business Valuation
Final Value Conclusion
As of June 30, 2018
(in $000s)

Assets		Liabilities and Owners' Equity	
Current Assets	10,000	Current Liabilities	10,000
Plant, Property, and Equipment:		Long-Term Debt:	
Real Estate	40,000	Note Payable	20,000
Tangible Personal Property	24,000	Mortgage Payable	18,000
Total	64,000	Total Long-Term Debt	38,000
Intangible Assets:		Owners' Equity	42,000
Identifiable Intangible Assets	16,000		
Total	16,000		
Total Assets	90,000	Total Liabilities and Owners' Equity	90,000

In the second scenario (in which Alpha generates an income loss and experiences economic obsolescence), the value of 100 percent of the equity, on a marketable, controlling ownership interest basis, is $42 million.

Illustrative Example of a Liquidation Valuation

This section presents a second simplified application of the asset-based approach to business valuation. Let's assume that the analyst is retained to value 100 percent of the common stock of a company that is essentially identical to Alpha. Let's call this second company Beta Corporation ("Beta").

Again, the analyst will value 100 percent of the single class of stock on a marketable, controlling ownership interest basis. Again, the analyst decides to use the asset-based approach to business valuation.

Again, the analyst has access to asset-category-specific appraisals, and the analyst has the cooperation of company management. So, the analyst can apply the AA method of the asset-based approach.

The only difference between Beta and the prior example is that the analyst decides to apply the market approach to value the Beta asset categories.

Therefore, this application of the asset-based approach will conclude a liquidation—or value in exchange—premise of value for Beta.

Again, as described above, the use of the market approach does not imply either a forced liquidation or an involuntary liquidation scenario. It simply implies a transactional scenario—between a willing buyer and a willing seller—where each Beta asset category is sold individually.

But each asset category will be sold to a buyer who will operate those assets within its going-concern business enterprise. And, each asset category will be sold after a normal exposure to its most beneficial secondary marketplace—in order to achieve the highest price possible for that asset category.

To have a direct comparison between the alternative asset-based approach applications, let's assume that the Beta historical cost, GAAP-based balance sheet is exactly the same as the Alpha historical cost balance sheet. That is, the Beta starting balance sheet looks exactly like Exhibit 1.

Again, the analyst started the valuation process by considering the Beta current asset accounts. Let's again assume that no revaluation procedures are necessary to the Beta current assets.

In this application of the asset-based approach, the analyst relied on third-party specialists to appraise the Beta real estate and the Beta equipment. This time, in consultation with the analyst, the real estate appraiser applied the market approach to value the Beta commercial real estate. And, in consultation with the analyst, the equipment appraiser applied the market approach to value the Beta tangible personal property.

The real estate appraiser concluded a value of $60 million. And, the equipment appraiser concluded a value of $35 million.

The analyst identified the same categories of Beta intangible assets as was described in the Alpha analysis. The analyst concluded that some of the intangible asset categories have little value when analyzed by reference to the market approach.

For example, competitors with their own documentation or workforce would pay a low value to acquire these Beta intangible asset categories. And, since the asset category buyers will have to generate their own future income, these buyers may pay little or no price for any Beta intangible value in the nature of goodwill.

Based on a market approach analysis of each intangible asset category, the analyst concluded a $10 million total value for all of the Beta identifiable intangible assets.

The analyst considered the Beta current liability accounts. The analyst concluded that the recorded account balances fairly reflect the current values of these liabilities.

The analyst considered the Beta note payable and the Beta mortgage payable. The analyst decided not to adjust the recorded balance of the note payable. And, the analyst decided to revalue the mortgage payable (based on the difference between the embedded interest rate and the current market interest rate) to $18 million.

Finally, the analyst had to consider any liabilities that would be created as part of the asset sale price. The analyst identified two such types of liabilities. First, the analyst had to recognize the accrued expense related to the holding period costs and the sale commissions on the property sales. Second, the analyst had to recognize the income tax liability related to the property sales.

Regarding accrued expenses, the analyst considered the following:

1. Make-ready maintenance expenses
2. Interest, insurance, and property tax during the sale period
3. Brokerage and other sale commissions

And, the analyst had to consider the sale of the Beta (1) real estate, (2) equipment, and (3) identifiable intangible assets. The analyst concluded that, in total, such accrued expenses would be approximately 10 percent of the selling price for each Beta asset category. The analyst quantified this accrued expense liability as presented in Exhibit 9.

Finally, the analyst had to quantify the capital gains tax liability related to the sale of each Beta asset category. Let's assume the analysis is based on the asset category tax basis data presented in Exhibit 10.

Exhibit 10 presents the amount of accumulated depreciation that may result in the recognition of ordinary income (related to the depreciation expense deduction recapture), depending on the current values assigned to each Beta asset category.

Assuming a simplified capital gain tax rate of 20 percent and an ordinary income tax rate of 35 percent (associated with the amount of depreciation expense recapture), let's assume the analyst quantified the income tax liability created from the asset-based valuation presented in Exhibit 11.

Exhibit 9
Beta Corporation
Accrued Expense Liability Analysis
As of June 30, 2018
(in $000s)

	Real Estate Expected Selling Price	60,000
	Equipment Expected Selling Price	35,000
	Intangible Asset Expected Selling Price	10,000
	Total Expected Asset Selling Price	105,000
×	Holding Period and Sales Expense Percent	10%
=	Asset-Sale-Related Accrued Expense Liability	10,500

Exhibit 10
Alpha Corporation
Income Tax Basis of Assets
As of June 30, 2018
(in $000s)

Asset Category	Original Cost	Income Tax Basis	Accumulated Depreciation Claimed
Real Estate	40,000	30,000	10,000
Tangible Personal Property	60,000	30,000	30,000
Intangible Asset (software)	20,000	10,000	10,000

Exhibit 11
Beta Corporation
Income Tax Liability
As of June 30, 2018
(in $000s)

Asset Category	(A) Selling Price	(B) Income Tax Basis	(C=A–B) Total Gain on Asset Sale	(D) Depreciation Expense Deduction Recapture (from Ex. 10)	(E) Income Tax Rate	(F=D×E) Ordinary Income Tax Liability	(G=C–F) Remaining Capital Gain	(H) Capital Gain Tax Rate	(I=H×G) Capital Gain Tax Liability	(J=F+I) Total Tax Liability
Real Estate	60,000	30,000	30,000	10,000	35%	3,500	20,000	20%	4,000	7,500
Tangible Personal Property	35,000	30,000	5,000	5,000	35%	1,750	0	20%	0	1,750
Intangible Assets	10,000	10,000	0	0	35%	0	0	20%	0	0
Total										9,250
Rounded										9,300

Accordingly, the analyst included a $10.5 million accrued expense liability and a $9.3 million (rounded) income tax liability in the asset-based approach valuation analysis. As part of the due diligence process, the analyst did not identify any contingent or other liabilities as part of the valuation.

Based on all of the asset and liability valuation procedures summarized above, the analyst developed the asset-based approach business valuation presented in Exhibit 12.

In summary, the historical cost (or accounting net book value) of the Beta total owners' equity was $30 million. The analyst used the asset-based business valuation approach and the market property valuation approach to value the Beta equity based on a liquidation premise of value.

After adjusting all of the Beta asset and liability accounts to a current value (and after considering the accrued expenses and tax liability related to the Beta asset category sales), the value of 100 percent of the equity, on a marketable, controlling ownership interest basis, is $47.2 million.

Summary and Conclusion

The asset-based approach is a generally accepted business valuation approach. The asset-based approach may be used to value closely held business, business ownership interests, and securities for transaction, taxation, accounting, strategic planning, and litigation purposes.

That said, many analysts (and legal counsel and other parties who rely on business valuations) are not particularly familiar with the application of the asset-based approach to business valuation.

Although it is more commonly used to value asset-holding companies, the asset-based approach can be applied to value operating companies as well. There are several generally accepted asset-based approach valuation methods. The most common methods are the asset accumulation method and the adjusted net asset value method.

However, all asset-based approach methods conclude a marketable, controlling ownership interest level of value. If the valuation subject is a nonmarketable, noncontrolling ownership interest, the asset-based approach may not be the most applicable business valuation approach.

If the analyst decides to apply the asset-based approach to conclude a nonmarketable, noncontrolling level of value, the analyst has to apply appropriate DLOM and DLOC adjustments. And, the analyst should understand that the level of such adjustments may be different for the asset-based approach

Exhibit 12
Beta Corporation
Asset-Based Approach Business Valuation
Final Value Conclusion
As of June 30, 2018
(in $000s)

Assets		Liabilities and Owners' Equity	
Current Assets	10,000	Current Liabilities	10,000
Plant, Property, and Equipment:		Long-Term Debt:	
Real Estate	60,000	Note Payable	20,000
Tangible Personal Property	35,000	Mortgage Payable	18,000
Total	95,000	Total Long-Term Debt	38,000
Intangible Assets:		Transaction-Related Liabilities:	
Identifiable Intangible Assets	10,000	Accrued Expenses	10,500
Total	10,000	Income Taxes Payable	9,300
		Total	19,800
		Total Owners' Equity	47,200
Total Assets	115,000	Total Liabilities and Owners' Equity	115,000

analysis than for the income approach or the market approach.

Common questions arise when analysts develop asset-based approach business valuations. These questions include the following:

1. Does the value conclusion indicate a going-concern value or a liquidation value?
2. When and how should the analyst incorporate goodwill measurements into the valuation?
3. How should income tax liabilities be incorporated into the analysis?
4. How should the analysis consider the scenario where the subject entity) or subject ownership interest) cannot sell the entity asset categories—due to regulatory, legal, contractual, or other restrictions?
5. Which property valuation approach or approaches are most applicable to an asset-based approach business valuation?

This discussion considered the above common issues with regard to the application of the asset-based approach. As discussed above, the answer to many of the common analyst questions depends on which property valuation approaches, methods, and procedures are used to value the subject entity asset categories.

Therefore, analysts who are not familiar with the mechanics of the property valuation approaches and methods may not be qualified to develop asset-based approach business valuations.

One simple litmus test is: the analyst should be able to explain (and defend) all of the differences between the asset-based business valuation approach and the cost property valuation approach.

Just about every business enterprise is either a tangible-asset-intensive entity or an intangible-asset-intensive entity. Therefore, the asset-based approach is applicable to value just about any business enterprise.

The asset-based approach may be used as the primary business valuation approach, as one of two or three business valuation approaches, or as a confirmatory analysis—to test the reasonableness of income approach or market approach value indications.

But, in all of these scenarios, the analyst should be sufficiently familiar with the asset-based approach practical application procedures in order to develop (and to understand and defend) a supportable business value conclusion.

Robert Reilly is a managing director of the firm and is resident in our Chicago practice office. Robert can be reached at (773) 399-4318 or at rfreilly@willamette.com.

Willamette Management Associates
Thought Leadership in Valuation, Damages Analyses, and Transfer Price Analyses

Willamette Management Associates consulting experts and testifying experts have achieved an impressive track record in a wide range of litigation matters. As independent analysts, we work for both plaintiffs and defendants and for both taxpayers and the government. Our analysts have provided thought leadership in breach of contract, tort, bankruptcy, taxation, family law, and other disputes. Our valuation, damages, and transfer price analysts are recognized for their rigorous expert analyses, comprehensive expert reports, and convincing expert testimony. This brochure provides descriptions of some recent cases in which we provided expert testimony on behalf of the prevailing party.

Transfer Pricing Testifying Expert Services

In the matter of ***Amazon.com, Inc. & Subsidiaries v. Commissioner*** (148 T.C. No. 8 (2017)), the U.S. Tax Court found in favor of the taxpayer plaintiff. The case involved a 2005 cost sharing arrangement that Amazon entered into with its Luxembourg subsidiary. Amazon granted its subsidiary the right to use certain pre-existing intangible property in Europe, including the intangible assets required to operate Amazon's European website business. The Tax Court held that (1) the Service's determination with respect to the buy-in payment was arbitrary, capricious, and unreasonable; (2) Amazon's CUT transfer price method (with some upward adjustments) was the best method to determine the requisite buy-in payment; (3) the Service abused its discretion in determining that 100% of technology and content costs constitute intangible development costs (IDCs); and (4) Amazon's cost-allocation method (with certain adjustments) was a reasonable basis for allocating costs to IDCs. Robert Reilly, a managing director of our firm, provided expert testimony on behalf of taxpayer Amazon in this Section 482 intercompany transfer pricing case.

Income Taxation Testifying Expert Services

On February 21, 2017, the U.S. Court of Federal Claims dismissed (with prejudice) the complaint filed by plaintiff **Washington Mutual, Inc.**, against the United States (Nos. 08-321T, 08-211T). The taxpayer plaintiffs were seeking a refund of at least $149 million in certain federal taxes paid by H.F. Ahmanson & Co. ("Ahmanson") during several tax years in the 1990s, based upon the abandonment loss and amortization deductions available under the Internal Revenue Code. The case involved the fair market value determination of the regulatory right to open deposit-taking branches in certain states other than California ("branching rights"), the contractual approval right to treat the goodwill created by certain acquisitions as an asset for regulatory accounting purposes ("RAP rights"), and certain other intangible assets. Curtis Kimball, a managing director of our firm, critiqued the valuation report presented by the plaintiff's valuation expert and provided rebuttal expert testimony on behalf of the U.S. Department of Justice regarding the valuation of branching rights and RAP rights intangible assets. The Claims Court dismissed the plaintiffs' tax refund claims.

Condemnation Proceeding Testifying Expert Services

In the matter of ***Town of Mooresville v. Indiana American Water Company*** (2014), Willamette Management Associates was engaged by the defendant to perform a valuation analysis of the Indiana American Water Company (the "company") retail water system located in Mooresville, Indiana. The purpose of the analysis was to assist the company in a condemnation proceeding initiated by the town of Mooresville, Indiana. Our assignment was to estimate the fair market value of the company total operating assets (as part of a going concern). The primary valuation issue in the dispute was: should all of the company operating assets (financial asset accounts, tangible property, and intangible assets) be assigned value in a condemnation proceeding? Or, should the condemnee receive the accounting book value (or regulatory "rate base") of the tangible assets only? After a jury trial, at which Robert Reilly, a managing director of our firm, provided expert testimony, the jury's decision favored our analysis and awarded Indiana American Water Company the value of both its tangible assets and its intangible assets.

Family Law Testifying Expert Service

In a marital dissolution matter in 2016, the Superior Court of Arizona, Maricopa County, found in favor of the husband in the family law case ***In re the Marriage of Julie Anne Bowe and Gregory James Vogel, Sr.*** (No. FC2014-001952), Willamette Management Associates was engaged by Gregory Vogel, as president and owner of Land Advisors Organization (LAO), a national land brokerage business, to prepare a valuation analysis. Charles Wilhoite, a managing director of our firm, provided expert testimony. The purpose of the analysis was to assist with facilitating the property settlement aspects of the parties' marital dissolution. The primary valuation issues in the dispute were (1) the most appropriate valuation date and (2) the appropriate historical period of operating results to be relied on as a foundation for estimating the expected future earnings in a capitalization of cash flow business valuation analysis. The Court favored the Willamette positions, resulting in a judicially concluded value for LAO significantly lower than the opinion offered by the opposing valuation experts. This case is currently being appealed.

Bankruptcy Testifying Expert Services

Willamette Management Associates was engaged by the proponents of a reorganization plan to prepare a declaration in the matter of *In re Plant Insulation Company* (No. 09-31347, U.S. Bankruptcy Court, N.D. Cal. 2014). Our assignment was to review the declarations of the opposing experts in this case and to offer our opinion on certain shareholder agreements related to the matter. In particular, we were asked to review a right of first offer agreement and to opine on its impact on the control, transfer, and value of common stock and warrant interests in Bayside Insulation and Construction, Inc. Following a trial, at which Willamette managing director Curtis Kimball offered rebuttal expert testimony, the U.S. Bankruptcy Court accepted the plan of reorganization proposed by the Futures Representative of the Official Committee of Creditors.

Property Taxation Testifying Expert Services

Willamette Management Associates was engaged by the plaintiff to prepare a forensic analysis expert report for *Sandy Creek Energy Associates, LP, and Brazos Sandy Creek Electric Cooperative, Inc. v. McLennan County Appraisal District* (No. 2014-3336-4, Dist. Ct. McLennan County, Texas, August 2016). The purpose of the Willamette expert report and expert testimony was to assist the owners of the Sandy Creek coal-fired electric generating plant (the "plant") in a property taxation dispute with the McLennan County Appraisal District (the "district"). Our assignment was to review and rebut the unit valuation expert report and testimony provided by the district's valuation expert. One issue in the dispute was the amount of economic obsolescence associated with the plant. As of the property tax assessment date, the plant's cost to produce electricity was significantly greater than the wholesale price of electricity. As described in the Willamette expert report, these operating conditions indicated that economic obsolescence was present in the plant. After a week-long trial, at which Willamette managing director Robert Reilly offered expert testimony, a jury decided that the fair market value of the plant was less than half of the value asserted by the district. This jury decision significantly favored the taxpayer, and it resulted in a substantial reduction in the plant's property tax assessment.

Dissenting Shareholder Rights Testifying Expert Services

In the case, ***In Re Appraisal of The Orchard Enterprises, Inc.*** (No. 5713-CS, 2012 WL 2923305 (Del. Ch. 2012), *aff'd* No. 470, 2013 WL 1282001 (Del. 2013)), Willamette Management Associates was retained on behalf of the petitioners in a case where the subject of the dispute was the fair value of the Orchard Enterprises, Inc. ("Orchard") common stock at the time the company was taken private. Orchard was a digital media services company specializing in music from independent labels with a mission to acquire distribution rights, build sales channels, and monetize these rights in new and innovative ways. The petitioners had received $2.05 per share in the going-private transaction. At trial, Tim Meinhart, a managing director of our firm, testified that the fair value of the Orchard common stock at the time of the go-private transaction was $5.42 per share. The court agreed with our overall conclusion that the transaction occurred at a price that was lower than the fair value of the stock. The court concluded that the common stock fair value was $4.67 per share at the time of the go-private transaction.

On Our Web Site

Recent Articles and Presentations

Kevin Zanni, a director in the Chicago office of our firm, authored a two-part article that appeared in the May 2, 2018, and May 9, 2018, issues of QuickRead, published by the National Association of Certified Valuators and Analysts. The title of Kevin's article is "Fair Value Not Based on the Merger Price."

Kevin's article focuses on the SWS Group case and on the interplay between merger price and fair value. The decision in this case highlights the risk of an arbitrage appraisal strategy. The decision also highlights how valuation analysts can sometimes arrive at quite divergent opinions of value. There is concern that the Delaware Chancery Court may view analysts as advocates for their clients rather than advocates for their independent valuation opinion.

Robert Reilly, a managing director of our firm, and Casey Karlsen, an associate in our firm, authored an article that appeared in the March/April 2018, issue of *Journal of Multistate Taxation and Incentives*. The title of Robert and Casey's article is "Intellectual Property Analysis as Part of a Property Tax Unit Principle Valuation."

Owners of closely held companies often must consider numerous issues with regard to the compensation of key employees. Robert and Casey's article focuses on the market approach to the valuation of intellectual property—in particular on the relief from royalty method. This method is commonly used to value intellectual property. The method is particularly applicable to the valuation of intellectual property that should be subtracted from the total unit value in order to conclude the valuation of taxpayer real estate and tangible personal property subject to property taxation. An illustrative example is provided.

Robert Reilly also authored a two-part article that appeared in the March 14, 2018, and March 21, 2018, issues of QuickRead, published by the National Association of Certified Valuators and Analysts. The title of Robert's article is "Transferring Closely Held Company Equity to a Key Employee."

Owners of closely held companies often must consider numerous issues with regard to the compensation of key employees. Robert's article considers some of the options available to closely held company owners who want to provide equity (or quasi-equity) ownership to a key employee. Robert uses an illustrative example with a hypothetical fact set to illustrate the considerations involved in this decision. In Part II of the article, Robert explores the alternative structures for transferring equity. These equity transfer structures may include issuing phantom stock, granting stock appreciation rights, or creating a partnership, to name a few.

Robert Reilly also authored an article that appeared in the January/February 2018 issue of Construction Accounting and Taxation. The title of Robert's article is "Reasonableness of Compensation Guidance for Construction Industry Taxpayers."

Robert focuses this article on the U.S. Tax Court decision in H.W. Johnson, Inc. v. Commissioner, which was a taxpayer-friendly judicial decision. This case involved payments to shareholder/employees and whether they were reasonable compensation and the deductibility of related-party payments. The case illustrates the importance of documentation of the actual relevant facts and circumstances. Good documentation may help the taxpayer win the day with regard to the tax deductibility of (1) shareholder/employee compensation and (2) related-party payments.

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Communiqué

In Print

Robert Reilly, firm managing director, authored an article that appeared in the January/February 2018 issue of *Construction Accounting and Taxation*. The title of Robert's article was "Reasonableness of Compensation Guidance for Construction Industry Taxpayers."

Robert Reilly also authored a two-part article that appeared in the online publication of the National Association of Certified Valuators and Analysts at www.quickreadbuzz.com. The article was titled "Transferring Closely Held Company Equity To a Key Employee." Part I appeared in the March 14, 2018, issue, and Part II appeared in the March 21, 2018, issue.

Robert Reilly also authored an article in the Spring 2018 issue of the *Practical Tax Lawyer*. The title of Robert's article was "The Independent Investor Test for Reasonableness of Shareholder/Employee Compensation in Tax Controversies."

Robert Reilly and Casey Karlsen, Portland office associate, authored an article that appeared in the March–April 2018 issue of *Journal of Multistate Taxation and Incentives*. The title of their article is "Intellectual Property Analysis as Part of a Property Tax Unit Principle Valuation."

Kevin Zanni, Chicago office director, and Jeffrey Jensen, Chicago office associate, co-authored a two-part article that appeared on NACVA's quickreadbuzz.com column on May 2 and May 9, 2018. The title of their article was "The SWS Group, Inc., Chancery Court Appraisal Decision: Fair Value Not Based on the Merger Price."

In Person

Charles Wilhoite, Portland office managing director, participated as a panelist on April 27, 2018, for the Portland Business Alliance Partners in Diversity CEO Forum in Portland, Oregon.

Charles Wilhoite represented the Portland Branch of the Federal Reserve Bank of San Francisco as a delegate to the 2018 Conference of Twelfth District Directors on April 12 and 13, 2018, in Los Angeles.

Kyle Wishing, a manager in our Atlanta office, delivered a presentation on April 19, 2018, at the 2018 NCEO Annual Conference in Atlanta. The topic of Kyle's presentation was "Preparing to Sell an ESOP: the Material Handling Systems Success Story."

Robert Reilly will deliver a presentation at the 48th Annual Wichita Conference of Appraisal for Ad Valorem Taxation on July 31, 2018, in Wichita. The topic of Robert's presentation will be "15 Differences between Unit Valuations and Business Valuations."

John Ramirez, Portland office vice president, will also be a co-presenter at the 48th Annual Wichita Conference. John will deliver his presentation on August 1, 2018, and the topic of the presentation will be "Intangible Property Valuation Approaches and Methods."

Encomium

Charles Wilhoite was appointed by the Board of Governors of the Federal Reserve System to serve a three-year term as a director of the Portland Branch of the Federal Reserve Bank of San Francisco. His term will end on December 31, 2020.

Charles Wilhoite was elected to serve as chair of the Meyer Memorial Trust board of trustees for the fiscal year ending March 31, 2019.

Charles Wilhoite was elected to serve as vice chair of the Legacy Health board of directors for the fiscal year ending March 31, 2019.

Charles Wilhoite was featured in the April 27, 2018, issue of *Oregon Business* magazine in a series on leadership titled, "Charles Wilhoite on Meyer Memorial Trust and transparent leadership."

Kevin Zanni, Chicago office director, earned the certified in entity and intangible valuations ("CEIV") credential granted by the American Institute of Certified Public Accountants.

Nate Novak, Chicago office vice president, earned the accredited senior appraiser ("ASA") credential granted by the American Society of Appraisers.

Insights Archives

❑ Spring 2018

Thought Leadership in Breach of Fiduciary Duty Tort Claims: Valuation and Damages Analyses

❑ Spring 2017

Thought Leadership in Family Law Financial and Valuation Issues

❑ Spring 2016

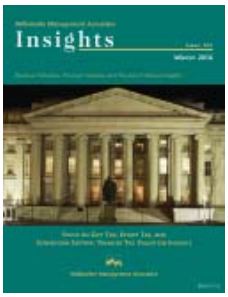
Focus on Intellectual Property

❑ Winter 2018

Thought Leadership in the Asset-Based Approach to Business Valuation

❑ Winter 2017

Thought Leadership in Estate and Gift Tax Valuation Services

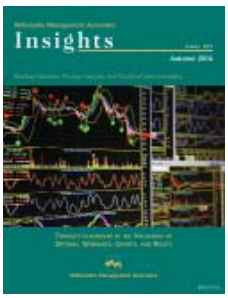


❑ Winter 2016

Focus on Gift Tax, Estate Tax, and Generation-Skipping Transfer Tax Valuation

❑ Autumn 2017

Thought Leadership in Dispute Resolution and Forensic Analysis



❑ Autumn 2016

Thought Leadership in the Valuation of Options, Warrants, Grants, and Rights

❑ Autumn 2015

Focus on Dissenting Shareholder Appraisal Rights and Shareholder Oppression Litigation

❑ Summer 2017

Thought Leadership in Property Taxation Planning, Compliance, and Controversy

❑ Summer 2016

Thought Leadership in Property Tax Valuation Issues

❑ Summer 2015

Focus on Reasonable Compensation in Eminent Domain and Expropriation Controversies

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Willamette Management Associates
thought leadership

Willamette Management Associates provides thought leadership in business valuation, forensic analysis, and financial opinion services. Our professional services include: business and intangible asset valuation, intellectual property valuation and royalty rate analysis, intercompany transfer price analysis, forensic analysis and expert testimony, transaction fairness opinions and solvency opinions, reasonableness of compensation analysis, lost profits and economic damages analysis, economic event analysis, M&A financial adviser and due diligence services, and ESOP financial adviser and adequate consideration opinions.

We provide thought leadership in valuation, forensic analysis, and financial opinion services for purposes of merger/acquisition transaction pricing and structuring, taxation planning and compliance, transaction financing, forensic analysis and expert testimony, bankruptcy and reorganization, management information and strategic planning, corporate governance and regulatory compliance, and ESOP transactions and ERISA compliance.

Our industrial and commercial clients range from substantial family-owned companies to Fortune 500 multinational corporations. We also serve financial institutions and financial intermediaries, governmental and regulatory agencies, fiduciaries and financial advisers, accountants and auditors, and the legal profession.

Willamette Management Associates analysts apply their experience, creativity, and responsiveness to each client engagement. And, our analysts are committed to providing thought leadership—by delivering the highest level of client service in every engagement.

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