

Willamette Management Associates

# Insights

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*Business Valuation, Forensic Analysis, and Financial Opinion Insights*



THOUGHT LEADERSHIP IN  
ESTATE AND GIFT TAX VALUATION SERVICES



Willamette Management Associates

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**Willamette Management Associates**  
*Thought Leadership*

# Insights

*Insights*, the journal of applied microeconomics, is published on a quarterly basis, with periodic special interest issues. *Insights* is distributed to the friends and clients of Willamette Management Associates.

*Insights* is intended to provide a thought leadership forum for issues related to the Willamette Management Associates business valuation, forensic analysis, and financial opinion services.

*Insights* is not intended to provide legal, accounting, or taxation advice. Appropriate professional advisers should be consulted with regard to such matters. Due to the wide range of the topics presented herein, the *Insights* discussions are intended to be general in nature. These discussions are not intended to address the specific facts and circumstances of any particular client situation.

The views and opinions presented in *Insights* are those of the individual authors. They are not necessarily the positions of Willamette Management Associates or its employees.

We welcome reader comments, suggestions, and questions. We welcome reader recommendations with regard to topics for future *Insights* issues. In particular, we welcome unsolicited manuscripts from lawyers, accountants, bankers, and other thought leaders of the valuation and forensic services community. Please address your comments or suggestions to the editor.

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## Forethoughts

This *Insights* issue focuses on gift, estate, and generation-skipping transfer (GST) tax valuation topics. These topics should provide high net worth individuals, attorneys, estate planners, and wealth advisers with an understanding of current gift- and estate-tax-related valuation issues.

Valuations of closely held businesses, business ownership interests, debt and equity securities, and intangible assets are often needed when high net worth individuals transfer wealth to the next generation. These wealth transfers include privately held businesses, publicly traded securities, family limited partnerships, limited liability companies, limited companies, joint ventures, royalty income streams, and intellectual property assets. Valuation of such business interests can be an important part of a business owner's estate plan.

Willamette Management Associates analysts are routinely called on to value (and to support the valuation of) business interests and securities for gift, estate, and GST tax purposes. A properly prepared valuation can help to avoid (1) a challenge by the Internal Revenue Service that could undermine an estate plan, (2) penalty taxes on estates that

undervalue assets, and (3) disagreements among the heirs.

This *Insights* issue presents a discussion of the effects, if any, of the proposed Section 2704 regulations. This discussion describes the valuation community's interpretation of the proposed regulations and how these proposed regulations may change estate-related business valuation methodologies.

Other *Insights* discussions address how to apply put option models, income approach valuation methods, and market approach valuation methods—all from the perspective of meeting a challenge from the Service.

This *Insights* issue also presents part three of the multiyear saga involving the *Estate of Giustina v. Commissioner*.

Additional *Insights* discussions include the valuation of intrafamily loans and notes, valuation considerations in estimating celebrity goodwill and the right to publicity, the use of closed-end mutual funds in quantifying discounts for lack of control, and the valuation of interests of a net income with make-up charitable remainder unitrust.

## About the Editor



### Weston C. Kirk

Weston Kirk is a manager of our firm. He is a resident in our Atlanta office. His practice includes business valuation, economic analysis, and financial opinion services.

Weston works predominately in the firm's wealth management valuation services practice. This practice area includes valuations for gift, estate, and generation-skipping transfer tax purposes.

Weston specifically works with the firm's regional, national, and international ultra-high-net-worth clients to solve their valuation needs.

Weston has performed various types of valuation and economic analyses, including merger and acquisition valuations, fairness opinions, ESOP formation

and adequate consideration analyses, business and stock valuations, litigation economic damages analyses, responses to Internal Revenue Service audit positions, undivided interests in real estate valuations, promissory note valuations, and gift and estate tax valuations.

He has prepared these valuation and economic analyses for the following purposes: transaction pricing and structuring; taxation planning and compliance (including federal income, charitable gift, estate, and generation-skipping transfer tax); ESOP transaction and financing; tender offers; stock option offers; litigation; and strategic information and planning.

Weston holds a bachelor of business administration in finance with honors from the Georgia State University J. Mack Robinson College of Business. He also holds a certification in economics from the Georgia State University Andrew Young School of Policy Studies.

*Thought Leadership*

# Proposed Section 2704 Regulations: Issues and Implications

Curtis R. Kimball

*On October 2, 2016, the Internal Revenue Service released its anticipated proposed regulations concerning the valuation of interests in corporations and partnerships for gift, estate, and generation-skipping transfer tax purposes. Specifically, the proposed regulations concern the treatment of certain lapsing rights and restrictions on liquidation in determining the value of the transferred interests. Further, the proposed regulations affect certain transferors of interests in corporations and partnerships, and the proposed regulations are intended to prevent the alleged undervaluation of such transferred interests. This discussion outlines the proposed regulations. And, this discussion describes the implied business and security valuation issues and implications if the proposed regulations are finalized in their current form.*

## INTRODUCTION

The Internal Revenue Service (the “Service”) has weighed into the long-running battle over the valuation of family-owned business interests for transfer tax purposes by issuing proposed regulations under Internal Revenue Code Section 2704.

The proposed regulations are supposed to close “loopholes” that, from the Service’s point of view, have eroded the effectiveness of Chapter 14 of the Internal Revenue Code by preventing unjustified valuation discounts from the underlying control value of family-owned businesses.

The proposed Section 2704 regulations tighten up the conditions under which business valuations can recognize restrictions over the family’s ability to control:

1. the redemption of interests or
2. the liquidation of the closely held company.

This discussion describes (1) the extent of these proposed changes and (2) the implications of this proposed authority regarding the valuation of noncontrolling ownership interest transfers among family members for gift and estate planning purposes.

## BACKGROUND AND HISTORICAL CONTEXT

Briefly (due to coverage in several other discussions in this *Insights* issue), the Service has historically taken the position that interests in family-owned businesses passing from one family member to another family member should be valued in a manner that reflects the overall control of the entity by the family. See Revenue Ruling 81-253 for an example of the Service’s thinking on this issue.<sup>1</sup>

The Service, however, has lost a number of cases on this subject, as courts concluded that noncontrolling ownership interests transferred among family members should be valued as noncontrolling ownership interests, often recognizing restrictions.

Congress subsequently enacted Section 2036(c) in 1987 to remedy perceived abuses in this and other types of intrafamily transactions, such as estate freezes. Because Section 2036(c) proved to be unworkable, it was repealed retroactively.

Congress then passed Chapter 14 of the Code in 1990. Final regulations for Chapter 14 were issued between 1992 and 1994.



Chapter 14 was supposed to prevent abuses by forcing taxpayers and their appraisers to make unfavorable assumptions to disregard retained rights and other restrictions. However, Congress noted that the changes to the law were not intended to prevent families from freely engaging in standard intrafamily transactions.<sup>2</sup>

The Service appeared to acquiesce to this better designed framework and the trend in judicial rulings (which have recognized that noncontrolling interest transfers among family members should be allowed greater discount adjustments to reflect their noncontrolling status) by issuing Revenue Ruling 93-12.<sup>3</sup>

Since that time, courts have continued to issue rulings that limit the scope of the Chapter 14 effect.<sup>4</sup>

In addition, some 47 states have changed their default laws in a manner that aided taxpayers to use allowable restrictions in state law to increase the discounts they could justify on gift and estate transfers among family members, even though the family as a whole continued to control the entity.

The Service has been pondering how to address this perceived increase in loopholes since at least 2003.<sup>5</sup>

The Obama administration has also been concerned enough about what they perceive as abuses to consider ways to reduce or eliminate discounts on family-controlled business interest transfers since at least 2010, via passage of new laws or via new regulations.<sup>6</sup>

Among the sections of Chapter 14 is Section 2704. Section 2704(b) gives the Service the authority to craft new regulations to disregard other restrictions that taxpayers and their advisers may invent that reduce value for tax purposes, but not ultimately reduce the value to the transferee.

On August 2, 2016, the Service issued proposed new regulations that they claim would deal with these issues. The proposed regulations include changes to Sections 2701, 2704(a), and 2704(b), which are all part of the special valuation rules under Chapter 14.

The following discussion outlines the proposed changes related to each section of the Code.

## EXPLANATION OF CHANGES TO SECTION 2701

### Family-Controlled Entity

The proposed changes to this regulation amends the definition of a family-controlled entity to include

any form of business entity, such as a corporation, partnership, limited liability company (LLC), or other business entity arrangement. This definition also includes a qualified subchapter S subsidiary.

From discussions with Catherine Hughes, a representative of the Service, our firm understands that this change is designed to include any existing or future organizational form that may be used by families to hold their wealth, foreign or domestic. This redesigned definition makes it unnecessary to update the definition in the future, because it is very inclusive for transfer tax purposes.

### Family Control

The proposed changes also update the definition of family control to include or clarify that control is defined as aggregate family ownership of 50 percent or more of capital or profits interests, or any equity interest (such as voting stock, a general partnership interest, or an LLC manager interest) with the ability to cause liquidation of the entity in whole or in part.

The form of the entity determines the test for control. The test also considers the local law under which the entity was created and governed.

### Family Member Definitions

The definitions of applicable family member and transferor's family remain unchanged from the original definitions in Sections 2701, 2704-1(a), and 2704-3(c).

It should be noted that, under these definitions, two unrelated families could be defined as having "control" if each family owned 50 percent of the business entity. Also, the definition excludes co-ownership by cousins.

The inclusion of relatives as applicable family members for measuring family control is always assessed from the standpoint of the transferor under these regulations.

## EXPLANATION OF CHANGES TO SECTION 2704-2(A)

### Three-Year Rule

The proposed changes to this section include a new rule that would tax lapses of a voting or liquidation right if the transferor dies within three years of the transfer that causes the lapse. The lapse is treated as a lapse occurring on the transferor's date of death and is includable in the value of the gross estate.

For example, if a transferor with a controlling interest in an entity transferred enough interests to put himself/herself below the point where the transferor could exercise control voting or liquidation rights, then the resulting decrease in value is taxed if the transferor dies within three years of the transfer.

Presumably, this change was made to eliminate deathbed transfers that would remove control from the deceased's estate.

### Assignee Interests Included

For example, if a transfer of an interest triggers a reclassification of the interest into an assignee interest that loses the ability to vote, then the resulting decrease in value is taxed if the transferor dies within three years of the transfer. This change was most likely made to eliminate the automatic reduction in the value of limited partnership and other interests by operation of state law upon transfer or death.



## EXPLANATION OF CHANGES TO SECTION 2704-2(B)

### More Restrictive Than under Local Law Exception Is Removed

The proposed regulations would remove the exception that limits the definition of an *applicable restriction* to one that is more restrictive than those under applicable under local law governing the entity. Applicable restrictions are lapsing or other defined restrictions to be ignored for valuation purposes.

A family-controlled business interest transferred to a member of the transferor's family is valued without regard to applicable restrictions limiting liquidation of the entity, so long as the restriction can be removed or avoided by any member or members of the transferor's family acting alone or collectively.

There are exceptions to what will be defined as an applicable restriction under the proposed changes to Section 2704-2. There are four remaining exceptions that will not be regarded as applicable restrictions to be ignored for valuation purposes.

#### Exception 1

A *commercially reasonable restriction* imposed by an unrelated third party. A restriction imposed by a bank lending agreement is a typical example.

#### Exception 2

A *restriction imposed by a mandatory law* that the controlling family cannot avoid by using its collective control to structure the entity under some other option under the entity's governing law that would allow the family to avoid the restriction.

#### Exception 3

Restrictions imposed by *buy-sell agreement terms valid under Section 2073*. Section 2073 addresses restrictions on the sale or use of interests in family-controlled entities, while the proposed regulations under Section 2074 address restrictions on the liquidation or redemption of such interests.

#### Exception 4

If all the family members have a *put right* with certain terms, redeemable at a *minimum value* (both of these terms are described further below).

## EXPLANATION OF CHANGES TO SECTION 2704-3

### Disregarded Restrictions

A new regulation is added under proposed regulation Section 2704-3. This designates a new class of *disregarded restrictions* on liquidation or redemption rights.

A family-controlled business interest transferred to a member of the transferor's family is valued without regard to the disregarded restrictions limiting liquidation or redemption of the interest, so long as the restriction can be removed or avoided by any member or members of the transferor's family acting alone or collectively. This rule is similar in nature to the applicable restrictions rule discussed above.

Such disregarded restrictions include the following:

1. Limitations on the holder to compel liquidation or redemption
2. Limitations on the amount to be received to be less than minimum value
3. Deferrals of more than six months on receipt of liquidation or redemption proceeds
4. Payment of proceeds in other than cash or property (notes from the company or related parties are not considered property in this case, subject to further qualifications as noted below)

There are exceptions to what will be defined as a disregarded restriction under the proposed Section 2704-3. There are five exceptions that will not be considered as disregarded restrictions to be ignored for valuation purposes:

#### Exception 1

A *commercially reasonable restriction* imposed by an unrelated third party. A restriction imposed by a bank lending agreement is a typical example.

#### Exception 2

A *restriction imposed by a mandatory law* that the controlling family cannot avoid by using its collective control to structure the entity under some other option under the entity's governing law that would allow the family to avoid the restriction.

#### Exception 3

Restrictions imposed by *buy-sell agreement terms valid under Section 2073*. Section 2703 addresses restrictions on the sale or use of interests in family-controlled entities, while the proposed regulations under Section 2074 address restrictions on the liquidation or redemption of such interests.

#### Exception 4

If all the family members have a *put right* with certain terms, redeemable at *minimum value* (both of these terms are described further below).

#### Exception 5

If there are nonfamily noncontrolling interest holders above a certain size with a *put right* with certain terms, redeemable at a *minimum value* (as described further below).

## IMPACT OF NONFAMILY HOLDERS EXPLAINED

Under the above-listed exception 5, nonfamily noncontrolling owners' voting and other rights to block liquidation, redemptions, or other control actions are disregarded restrictions unless they meet all of the following qualifications:

1. Any single nonfamily interest holder has at least 10 percent of total equity interests.
2. Total nonfamily interests equal at least 20 percent of total equity interests.
3. Such interests have been held by the nonfamily owners for at least three years.
4. All such nonfamily interests have a put right at minimum value (see below for details).

## EXPLANATION AND DEFINITION OF A QUALIFYING PUT RIGHT

In order to qualify as a put right that won't be ignored under Section 2704, the put right has to have all of the following terms:

1. It must apply to the entire interest held.
2. It must provide for payment of the put's proceeds within no more than six months.
3. The proceeds must be in the form of cash or property at minimum value.
4. If the entity is engaged in an active business and has at least 60 percent of its value in nonpassive assets, then a long-term note may be used as payment for the put, if the note is:



- a. not funded by passive assets and
- b. adequately secured and
- c. repaid in periodic (nondeferrable) payments and
- d. at a market rate of interest and
- e. at a fair market value equal to the put proceeds of minimum value.

Note that the qualifications for the put right would appear to eliminate the use of long-term notes at the Applicable Federal Rate, which is available for many other family transactions.

## EXPLANATION AND DEFINITION OF MINIMUM VALUE

Minimum value is a new standard of value proposed by the Service. The existing standard of value for transfer tax purposes is fair market value.

It is noteworthy that in some cases, minimum value may be the same as fair market value. However, that similarity does not mean that the definitions of these values are the same. They are not.

1. *Minimum value* is defined as follows:
  - a. The interest's pro rata share of the "net value" of the entity on the date of liquidation or redemption.
  - b. Note that the terms "net value" and "minimum value" are not defined terms under standard nomenclature in the relevant technical community of private business valuation analysts. Nor are the terms typically used by real world buyers and sellers or by their advisers.
2. *Net value* is defined as follows:
  - a. The fair market value of the entity's assets, determined under Section 2031 (for estate taxes) or Section 2512 (for gift taxes), depending on whether the matter concerns gift or estate taxes.
  - b. This value standard can only be defined as an entity-level standard of value, given the definition less the "outstanding obligations" of the entity. Again, this is an entity-level standard of value.
3. *Outstanding obligations* are defined as obligations that would be allowable as deductions under Section 2053 as claims against an estate.

We understand that Section 2053 claims are only those obligations that are actually payable and are ascertainable, as noted below:

- a. To be deductible, a claim against a decedent's estate must represent a personal obligation of the decedent existing at the time of the decedent's death.

Except as otherwise provided in paragraphs (b) and (c) of this section, and to the extent permitted by Section 20.2053-1, the amounts that may be deducted as claims against a decedent's estate are limited to:

- i. the amounts of bona fide claims that are enforceable against the decedent's estate (and are not unenforceable when paid) and
- ii. claims that:
  - (1). are actually paid by the estate in satisfaction of the claim or
  - (2). meet the requirements of Section 20.2053-1(d)(4) for deducting certain ascertainable amounts.

The Service does not explain how *personal obligations* fit into the context of *business entity obligations*.

Therefore, minimum value may be considered to be similar to—but not quite the same as—using an asset-based (net asset value) valuation approach, using a premise of value under an assumption of an orderly liquidation.

However, if the entity is an active business, one may assume that minimum value may represent the sale of the entire entity to a single buyer under a premise of value assumption of a sale as a going concern.

## EXPLANATION OF HOW THESE VALUES ARE APPLIED

The proposed regulations also note, or imply, how these values are applied to various transactions and recipients.

The proposed regulations state that the higher values under the applicable/disregarded restriction valuation rules and put rights at minimum value also apply to the *marital deduction* and for the *stepped-up cost basis* value for a spouse for estate tax and income tax purposes.

The proposed regulations also imply that other family members inheriting or buying interests can also adopt these higher values (unless they fall under one of the exceptions) for stepped-up cost basis for gift/estate tax and income tax purposes.

The proposed regulations also establish that these higher values *do not apply* to transfers to non-family members, such as charities. In such cases, the ordinary fair market value standard applies.

## IMPLICATIONS FOR VALUATION

### Worst Case: If Minimum Value Is the Only Applicable Value

Some legal commentators have concluded that the requirement that all restrictions resulting in a value less than minimum value for family transactions must be ignored for valuation purposes (unless they fall under one of the exceptions noted above). This interpretation results in a de facto deemed value at minimum value for all family transactions that fall under the proposed regulations of Section 2704.

If this is the case, then the only valuation issues would be at the entity level under the new minimum value standard.

### Pessimistic Case: If Fair Market Value of the Entity Is the Applicable Value

If the ability to liquidate the entity is a mandatory restriction imposed under local laws, then the fair market value of the entity, assigned on a pro rata basis to the subject interest, is the standard of value applicable under exception 2 noted above for any interests, even noncontrolling interests, transferred among family members.

If this is the case, then considerations of risk factors that would result in company obligations such as built-in gains tax exposures for C corporations and environmental or other regulatory exposures that exist for all entities (but which cannot be reduced to ascertainable amounts) can be considered as they always are under fair market value standards by hypothetical willing buyers and sellers.

Consideration of other factors, such as the amount of value that is assignable to the personal goodwill of a key family member-owner—and not as part of the entity's goodwill—will also become part of the assessment of minimum value. In most cases for active businesses, the entity-level fair market value of an interest will be less than its minimum value.

In many cases for holding company or investment management businesses, the entity-level fair market value of an interest will be equal to or less than its minimum value. But discounts for lack of control and for lack of marketability will be smaller, if they can be justified.

### Best Case: If Fair Market Value under Applicable/Disregarded Restriction Standards Is the Applicable Value

Some legal commentators have concluded that transfers among family members will still allow consideration of noncontrolling status for noncontrolling interest transfers (subject to the three-year rule).

If this is the case, then attorneys and appraisers will have to work together to arrive at a set of assumptions regarding the remaining terms and conditions that will be allowable for consideration regarding liquidation and redemption restrictions (and other factors applicable) in arriving at the fair market value for the transferred noncontrolling interest.

One would assume that some reduced set of lack of control and lack of marketability factors would apply once the other applicable/disregarded restrictions are “sanded off” of the entity's governing documents.

However, one would expect that discounts for lack of control and lack of marketability would still be applicable at the transferred interest (i.e., noncontrolling, non-publicly-marketable) level—just not as large as taxpayers have seen previously.

## IMPLICATIONS FOR PLANNING

### Better the Devil You Know Than the Devil You Don't Know

We are seeing some clients going ahead and finishing all feasible intrafamily transfers before the proposed regulations are finalized. The Service's comments indicate that the regulations will not be finalized until sometime later in 2017 (at the earliest).

We understand that the Service has received over 8,000 comments on the proposed regulations, and has indicated that they will be in no particular hurry to finalize the proposed regulations, given the real problems that commentators have already noted in the interpretation of the wording of the proposed regulations.

Members of Congress have also indicated that they believe that the Service has overreached its regulatory authority in this matter and, therefore, plan to stop, alter, or delay the changes to the regulations. So there should be adequate time to plan and execute transfers under the well-understood current valuation standards.

## When to Opt into Using Put Rights at Minimum Value

If minimum value is not the deemed value for all intrafamily transfers, then taxpayers should be able to opt into using this alternative as a *safe harbor*.

We can think of only two circumstances in which it makes sense to use qualifying put rights at minimum value:

1. If the entity is a pass-through entity and owns nothing but publicly traded securities and has no material obligations, then put rights at minimum value and the fair market value of the entity will be the same.

Some clients who are averse to fighting with the Service over tax issues may opt into using qualifying put rights at minimum value for administrative convenience. Anyone actually triggering his or her put rights should expect to receive low basis assets as proceeds.

The potential disruption to the entity's continuing investment activities due to the necessity to honor put rights would discourage many taxpayers.

2. In the same set of circumstances as above, if the client wishes to obtain a significant charitable gift deduction, and the charity prefers to be a long-term owner and not trigger its put rights at minimum value, then establishing a charity with a gift of a 20 percent or more interest with qualifying put rights would allow consideration of the charity's blocking right restrictions on other family members for transfer tax purposes.

## Beware of the Three-Year Rule

Although the Service has indicated that the three-year rule will only apply to transactions that occur after the proposed regulations are finalized, any interim planning should take into account the impact of the rule once it is adopted.

This may include commissioning valuations for planning purposes that assume the client dies within three years after making a transfer to assess the implied magnitude of the value of these phantom assets.

## When the Regulations Become Final

Assuming that the Service finalizes the regulations some time in 2017, then valuation issues will be clarified and, presumably, the Service will have closed the perceived loopholes to which it has long objected. In anticipation of this end stage, clients

and their legal counsel should review all relevant entity-governing documents to make changes to reduce the impact of the proposed regulations.

As a note, the Service has claimed that the proposed regulations do not require either a regulatory impact assessment or a regulatory flexibility analysis.

This claim is completely preposterous, as every family-owned business entity of every type will have to review its governing documents to see if liquidation, redemption, or buy-sell rights and restrictions need to be amended in light of the proposed changes to the regulations. The federal government's own statistics show that there are millions of these entities.<sup>7</sup>

## SUMMARY AND CONCLUSION

The Service has proposed regulations regarding Internal Revenue Code Section 2704. The proposed regulations lack clarity in a number of essential areas affecting the valuation of family-owned entities.

Any reasonable analysis indicates that future valuations will have less scope to apply discounts for noncontrolling interests in family-controlled entities for transfer tax purposes for transfers among family members.

Taxpayers should consider moving forward with all feasible intrafamily transfers before the proposed regulations are finalized.

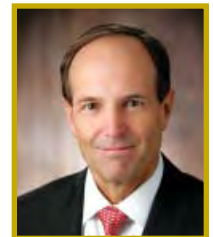
Clients and their legal counsel should review all relevant entity-governing documents to develop a plan to make changes to reduce the impact of the regulations once they are finalized.

We stand ready to help our clients with valuations and analysis of planning issues now and in the future to deal with the proposed regulations under Section 2704.

### Notes:

1. Rev. Rul. 81-253, 1981-1 C.B. 187.
2. Revenue Reconciliation Act of 1990, Senate Finance Committee Report (Washington, DC: U.S. Government Printing Office, 1990), 61.
3. Rev. Rul. 93-12, 1993-1 C.B. 202.
4. See *Kerr v. Commissioner*, 113 T.C. 449 (1999).
5. IRS Priority Guidance Plan 2003-04.
6. Fiscal Year 2010 Revenue Proposals (Greenbook).
7. <https://www.irs.gov/uac/tax-stats>

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# Willamette Management Associates Thought Leadership Services to Legal Counsel

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Perkins Coie LLP

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Sheppard, Mullin, Richter  
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Sidley Austin LLP

Simpson Thacher &  
Bartlett LLP

Skadden, Arps, Slate, Meagher  
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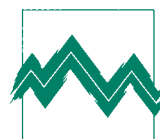
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# *Estate of Giustina v. Commissioner—* **Round 3**

Christopher M. Silvetti

*A previous discussion of the Estate of Giustina v. Commissioner case was presented in the summer of 2015 Insights issue. At that time, the case was on appeal to the U.S. Court of Appeals for the Ninth Circuit. The Ninth Circuit reversed and remanded the case back to the U.S. Tax Court for recalculation. This discussion summarizes the original facts presented in the case and the updated findings concluded by the U.S. Tax Court in a supplemental memorandum opinion on June 13, 2016.*

## **INTRODUCTION**

The Giustina family was involved in business operations related to timberland harvesting and growing dating back to the early 1900s. In the early 1900s, the family ancestors emigrated from Italy to the United States.

At its inception, the family business was operated as a construction company. The construction company was created to aid in the rebuilding effort after the 1906 San Francisco earthquake. In 1910, the company operations moved from San Francisco, California, to Portland, Oregon.

In 1917, the company purchased a lumber mill in Molalla, Oregon. In the 1920s, the company moved to Lane County, Oregon, where it operated an additional lumber mill near Dexter, Oregon. In an effort to expand its land base ownership, over the following years, the company acquired timberland and mills in the Eugene, Oregon, vicinity.

These timberland acquisitions built the foundation for future company operations. The Giustina family had a longstanding history of acquiring and harvesting large tracts of land in the Eugene, Oregon, area.

On January 1, 1990, the Giustina Land and Timber Company Limited Partnership (the “Partnership”) was formed. The Partnership agreement provided the general partners with complete control over the Partnership, including the rights to sell the Partnership’s land and harvested products.

The Partnership agreement stipulated that a general partner could only be approved or removed by limited partners owning at least two-thirds of the limited partnership.

The stated purpose of the Partnership, as provided by the Partnership agreement, was to operate a sustained yield timber harvesting company. The goal of the Partnership was to pass the Partnership ownership on to future family generations. The Partnership agreement also stated that the Partnership would continue operating as a business until December 31, 2040.

## **CASE BACKGROUND**

Natale B. Giustina passed away on August 13, 2005, with a 41.128 percent limited partnership interest, (the “Subject Interest”) in the Partnership.

At that time, the Partnership employed 15 full-time employees, and it was primarily engaged in the growing, harvesting, and selling of forestry products. The Partnership’s primary holdings consisted of 47,939 acres of timberland in the Eugene, Oregon, area.

The U.S. Tax Court (the “Tax Court”), as cited in the *Estate of Natale B. Giustina v. Commissioner*,<sup>1</sup> determined the value of the Subject Interest.

In its determination, the Tax Court considered the testimony evidence as provided by the estate’s valuation expert and by the valuation expert of the Internal Revenue Service (the “Service”).

## THE ESTATE'S POSITION

The estate's valuation expert and the Service's valuation expert agreed that the total value of the timberland assets was \$142,974,438 on a controlling, marketable ownership interest basis. This value included a 40 percent discount that was intended to address the time needed to sell the land.

The estate's valuation expert relied on three generally accepted valuation approaches and presented four generally accepted valuation methods to estimate the value of the Partnership.

Based on an asset-based approach, applying the net asset value method, the estate's expert concluded a value of \$51,100,000 for the Partnership on a noncontrolling, marketable ownership interest basis.

The estate's valuation expert selected a 10 percent weighting to apply to the asset-based approach value indication to arrive at the fair market value conclusion for the Partnership on a noncontrolling, marketable value basis.

The estate's valuation expert presented two income approach valuation methods:

1. The direct capitalization method
2. The capitalization of distributions method

The application of the direct capitalization method resulted in a noncontrolling, marketable value of \$33,800,000 for the Partnership. The estate's valuation expert selected a 30 percent weighting to apply to the direct capitalization method value indication in order to arrive at the fair market value conclusion for the Partnership on a noncontrolling, marketable value basis.

In Tax Court, the estate's valuation expert testified that "[t]he optimal strategy to maximize the value of the Partnership would be to sell the timberland and get \$143 million today, whereas continuing operations would only generate \$52,100,000," using the capitalization of distributions method—the third generally accepted valuation method used in the estate valuation expert's analysis.

The estate valuation expert selected a 30 percent weighting for the capitalization of distributions method value indication in order to arrive at the fair market value conclusion for the Partnership on a noncontrolling, marketable value basis.

For the fourth and final valuation method, the estate's valuation expert presented a valuation applying the guideline publicly traded company method to arrive at \$59,100,000 on a noncontrolling, marketable value basis.

The estate's valuation expert selected a 30 percent weighting for the guideline publicly traded company method value indication in order to arrive at the fair market value conclusion for the Partnership on a noncontrolling, marketable value basis.

Based on the selected weightings, the estate's valuation expert concluded that the total value of the Partnership was \$48,610,000 on a noncontrolling, marketable value basis.

In order to arrive at a noncontrolling, nonmarketable value, the estate's valuation expert selected a 35 percent discount for lack of marketability. Therefore, the concluded fair market value of the 41.128 percent interest in the Partnership was \$12,995,000.

## THE SERVICE'S POSITION

The Service valuation expert used three generally accepted valuation approaches and presented three generally accepted valuation methods to estimate the value of the Partnership.

Based on an income approach, applying the discounted cash flow method, the Service valuation expert concluded that the Partnership was worth \$65,760,000 on a controlling, marketable value basis. The Service valuation expert selected a 20 percent weighting for the discounted cash flow method.

Based on a market approach, applying the guideline publicly traded company method, the Service expert concluded that the Partnership had a fair market value of \$99,550,000 on a controlling, marketable value basis.

The Service valuation expert selected a 20 percent weighting for the guideline publicly traded company method.

Based on an asset-based approach, applying the net asset value method, the Service valuation expert concluded that the Partnership had a fair market value of \$150,680,000 on a controlling, marketable value basis.

The Service valuation expert selected a 60 percent weighting for the net asset value method.

Based on the selected weightings, the Service valuation expert concluded that the total fair market value of the Partnership was \$123,470,000 on a controlling, marketable value basis.

The Service valuation expert concluded that the total fair market value of the Partnership after valuation discounts (i.e., a 34 percent combined discount for lack of marketability and lack of control) was \$81,490,200.

The Service valuation expert concluded that the value of a 41.128 percent partnership interest in the Partnership was \$33,515,000.

## THE TAX COURT'S ORIGINAL DECISION

Originally, the Tax Court used two generally accepted valuation approaches—and presented two generally accepted valuation methods—to estimate the value of the Partnership.

Based on an income approach, and the discounted cash flow method, the Tax Court estimated the value of the Partnership at \$51,702,857 on a noncontrolling, marketable value basis.

In order to conclude this value indication, the Tax Court developed its own present value discount rate including the selection of a partnership-specific risk premium.

The Tax Court then selected a 75 percent weighting to apply to the discounted cash flow method indication in order to arrive at the fair market value conclusion for the Partnership on a noncontrolling, marketable value basis.

Based on an asset-based approach, the net asset value method, the Tax Court estimated the value of the Partnership at \$150,680,000 on a controlling, marketable value basis.

In this case, the Tax Court essentially accepted the Service valuation expert's asset-based approach value conclusion.

The Tax Court then selected a 25 percent weighting to apply to the net asset value method indication in order to arrive at the fair market value conclusion for the Partnership on a controlling, marketable value basis.

The Tax Court reasoned that an owner of a 41.128 percent interest in the Partnership could effectuate a sale by various means. In this case, the Tax Court estimated the probability of a sale to be 25 percent.

The Tax Court selected a 25 percent discount for lack of marketability, but the court only applied the discount to the income approach estimate of value.

After the application of the 25 percent discount for lack of marketability, as only applied to the income approach estimate of value, the concluded fair market value of the Partnership was \$66,752,857 on a purported noncontrolling, non-marketable value basis.

The Tax Court concluded that the value of a 41.128 percent Partnership interest in the Partnership was \$27,454,115.



## THE NINTH CIRCUIT COURT OF APPEALS DECISION

The appellate decision related to the *Estate of Natale B. Giustina v. Commissioner*,<sup>2</sup> was filed December 5, 2014, as an unpublished opinion.

In its unpublished opinion, the U.S. Court of Appeals for the Ninth Circuit (the “Ninth Circuit”) reversed and remanded to the Tax Court for recalculation of its valuation of a 41.128 percent interest in the Partnership.

In its opinion, the Ninth Circuit addressed the Tax Court’s use of valuation methods, the selected weightings, the selected valuation discounts, and the selected partnership-specific risk premium as part of an equity cost of capital calculation.

## VALUATION METHODS AND SELECTED WEIGHTINGS

As previously mentioned, to arrive at the value of the Subject Interest, the Tax Court selected a 75 percent weighting to apply to the income approach value indication. This value was intended to conclude a value of the Partnership as a going-concern business operation.

The Tax Court selected and applied a 25 percent weighting for the asset-based approach value indication. This value was intended to present a value that accounted for the likelihood of liquidation.

The Tax Court acknowledged that the owner of the limited interest could not unilaterally force liquidation, but concluded that the owner of the limited interest could assemble a two-thirds voting block with other limited partners, and assigned a 25 percent chance of occurrence.

According to the Ninth Circuit, the Tax Court conclusion that the Subject Interest could liquidate the Partnership is contrary to the evidence in the record.

The Ninth Circuit reasoned that the Tax Court was in error based on the following statement:

In order for liquidation to occur, we must assume that (1) a hypothetical buyer would somehow obtain admission as a limited partner from the general partners, who have repeatedly emphasized the importance that they place upon continued operation of the Partnership; (2) the buyer would then turn around and seek dissolution of the partnership or removal of the general partners who just approved his admission to the partnership; and (3) the buyer would manage to convince at least two (or possibly more) other limited partners to go along, despite the fact that no limited partner ever asked or ever discussed the sale of an interest.

The Ninth Circuit considered the Tax Court's error in selecting a 25 percent likelihood of hypothetical events. Other Tax Court judges have made similar errors.

The Ninth Circuit discussed this error in the following quote:

Alternatively, we must assume that the existing limited partners, or their heirs or assigns, owning two-thirds of the partnership, would seek dissolution. We conclude that it was clear error to assign a 25 percent likelihood to these hypothetical events. As in *Estate of Simplot v. Commissioner*, 249 F.3d 1191, 1195 (9th Cir. 2001), the Tax Court engaged in "imaginary scenarios as to who a purchaser might be, how long the purchaser would be willing to wait without any return on his investment, and what combinations the purchaser might be able to effect" with the existing partners [emphasis added]. See also *Olson v. United States*, 292 U.S. 246, 257 (1934) (explaining in a condemnation case that, when a court estimates "market value," "[e]lements affecting value that depend upon events or combinations of occurrences which, while within the realm of possibility, are not fairly shown to be reasonably probable[,] should be excluded from consideration"). We therefore remand to the Tax Court to recalculate the value of the Estate based on the partnership's value as a going concern.

## TAX-AFFECTING PASS-THROUGH ENTITIES

The valuation consideration of selecting and using a corporate income tax rate for the valuation of pass-through entities remains a controversial topic for valuations performed for tax purposes.

Because the Partnership is a pass-through entity, for income tax purposes, partnership earnings are taxed at the partner level of ownership and not at the corporate level.

Because the estate's expert applied public-company-derived rates of return that were based on public company after-tax returns, the estate's valuation expert applied a corporate income tax rate to the Partnership earnings prior to calculating the cash flow used in the income approach.

In this case, the estate valuation expert applied a 25 percent income tax rate (approximately equal to the marginal Partnership unitholder federal and Oregon state income tax rate) resulting in a normalized net income used in calculation of the normalized cash flow.

The decision to subtract income tax related to the valuation of a pass-through entity will continue to be a controversial issue. According to the Ninth Circuit, as presented in its unpublished opinion, in regard to tax-affecting pass-through entity cash flow:

The Estate claims that the Tax Court clearly erred by using pretax cash flows for the going-concern portion of its valuation. The Estate admits in its brief that "tax-affecting is . . . an unsettled matter of law."

However, in this case, because the estate suggested that tax-affecting is an unsettled matter, the Ninth Circuit found that tax-affecting the net income was not appropriate.

## DISCOUNT FOR LACK OF MARKETABILITY

It is generally accepted that an investment is worth more if it is readily marketable and, conversely, worth less if it is not readily marketable.

The difference in price an investor will pay for a liquid asset compared to an otherwise comparable illiquid asset is often substantial. This difference in price is commonly referred to as the "discount for lack of marketability."

The discount for lack of marketability measures the difference in the expected price of:



1. a liquid asset (the benchmark price measure) and
2. an otherwise comparable illiquid asset (the valuation subject).

It is true that there are varying degrees of investment marketability. An ownership interest in an actively traded security can typically be converted into cash within three business days of the sell decision. This is the typical investment benchmark for a fully marketable security.

At the other end of the investment marketability spectrum is an ownership interest in a privately owned company. In this case, the Partnership:

1. pays no dividends or other distributions,
2. requires capital contributions, and
3. limits ownership of the Partnership to certain individuals.

While both the Tax Court and the estate agreed that the Subject Interest suffered from lack of marketability, the appropriate level of discount was an item of debate.

The Ninth Circuit agreed with the Tax Court's selected discount for lack of marketability as noted in the following statement:

Further, the Tax Court did not clearly err by using the Commissioner's proposed 25% marketability discount rather than the Estate's proffered 35% discount, *see, e.g., Estate of O'Connell v. Comm'r*, 640 F.2d 249, 253 (9th Cir. 1981), especially considering that the Estate's expert acknowledged that such discounts typically range between 25% and 35%.

## PARTNERSHIP-SPECIFIC RISK PREMIUM

In general, there may be various partnership-specific risk factors that surround an investment in a partnership interest.

According to the estate valuation expert, the following factors relate specifically to an ownership interest in the Partnership:

1. The Partnership is significantly smaller than the average size of the companies used to estimate the small stock equity risk premium adjustment.
2. The Partnership timberland assets are all located in Oregon and, therefore, not geographically dispersed.



3. The Partnership had nondiversified operations with one source of revenue (timber harvesting).
4. The Partnership timberland assets are managed on a sustained yield basis to optimize forest growth and long-term asset value.

Based on these partnership-specific risk factors, the estate's expert added a 3.5 percent risk premium to the equity cost of capital calculation. The Tax Court decreased the partnership-specific risk premium to 1.75 percent; however, it did not sufficiently explain its reasoning for doing so.

Because the Tax Court did not explain why it decreased the partnership-specific risk premium, as a component of the equity cost of capital calculation, the Ninth Circuit found that the Tax Court erred as indicated by the following paragraph:

We do, however, hold that the Tax Court clearly erred by failing to adequately explain its basis for cutting in half the Estate's expert's proffered company-specific risk premium. Even under the deferential clear error standard, "[i]n drawing its conclusions . . . the Tax Court is obligated to detail its reasoning." *Estate of Trompeter*, 279 F.3d at 770. We recognize that diversification of assets is a widely accepted mechanism for reducing company-specific risk. However the Tax Court stated only that "investors can eliminate such risks by holding a diversified portfolio of assets," without considering the wealth a potential buyer would need in order to adequately mitigate risk through diversification.

## THE TAX COURT'S SUPPLEMENTAL OPINION

At the direction of the Ninth Circuit, the Tax Court adjusted its opinion to implement the remand from the Ninth Circuit. Summarized below are the series of tasks performed by the Tax Court to implement the remand from the Ninth Circuit Supplemental Memorandum Opinion (“Supplemental Opinion”):<sup>3</sup>

- We adjust our valuation of the 41% limited-partner interest to give no weight to the value of the assets owned by the partnership.
- We further explain our original reason for reducing the partnership-specific risk premium from 3.5% to 1.75%.
- We hold that our original reason is not valid because it is inconsistent with the Ninth Circuit’s opinion. We adjust our valuation of the 41% limited-partner interest to incorporate a partnership-specific risk premium of 3.5%.
- We recalculate our valuation of the 41% limited-partner interest as \$13,954,730. This is the result of: (1) giving no weight to the value of the assets owned by the partnership and (2) using a partnership-specific risk premium of 3.5%.

The first adjustment the Tax Court made was to update the weighting applied to the assets owned by the Partnership. As stated above, the Tax Court originally adopted a 25 percent weighting that the Partnership would liquidate and sell its assets after the Subject Interest was transferred to a hypothetical willing buyer.

Applying the Ninth Circuit’s recommendation to “recalculate the value of the Estate based on the partnership’s value as a going concern,”<sup>4</sup> the Tax Court implemented the Ninth Circuit’s “instruction by changing the weight we accord to the present value of cash flows from 75% to 100%.”<sup>5</sup>

In applying the Ninth Circuit’s recommendations, the Tax Court disregarded the previously applied liquidation method and accorded greater weight to the cash flow of the Partnership.

This decision greatly benefits the taxpayer, but the application of a 100 percent weighting to the discounted cash flow method is significant in that it contradicts the Service’s Revenue Ruling 59-60, which states the following:

The value of the stock of a closely held investment or real estate holding company, whether or not family owned, is closely related to the value of the assets underlying the stock. For companies of this type

the appraiser should determine the fair market values of the assets of the company. Operating expenses of such a company and the cost of liquidating it, if any, merit consideration when appraising the relative values of the stock and the underlying assets. The market values of the underlying assets give due weight to potential earnings and dividends of the particular items of property underlying the stock, capitalized at rates deemed proper by the investing public at the date of appraisal [emphasis added]. A current appraisal by the investing public should be superior to the retrospective opinion of an individual. For these reasons, adjusted net worth should be accorded greater weight in valuing the stock of a closely held investment or real estate holding company, whether or not family owned, than any of the other customary yardsticks of appraisal, such as earnings and dividend paying capacity. [emphasis added]

The second adjustment the Tax Court made was related to the partnership-specific risk premium. In the Supplemental Opinion, the Tax Court provided further explanation for its rationale for halving the estate valuation expert’s 3.5 percent partnership-specific risk premium.

The Service’s Revenue Ruling 59-60 clearly defines the hypothetical willing buyer and willing seller concept, but the additional support provided by the Tax Court contradicts the definition of willing buyer and willing seller.

The Tax Court decision stated the following:

The Court of Appeals opinion, in discussing the possibility that a hypothetical buyer could force the sale of the partnership’s assets, held that the hypothetical buyer must be a buyer to whom a transfer of a limited-partner interest is permitted under section 9.3 of the partnership agreement. By the same token, in evaluating the hypothetical buyer’s ability to diversify risk, we should consider only a buyer whose ownership of a limited-partner interest is permitted by section 9.3 of the partnership agreement. [emphasis added]

It is noteworthy that most limited partnerships have a clause related to the restrictions associated with the sale of limited partnership units and that limited partnership units may only be sold to current partners. This assumption unequivocally repudiates the foundation of the willing buyer and willing seller relationship.

It is also important to note that the Tax Court clarified its assumption relating to halving the estate valuation expert's partnership-specific risk premium. The Ninth Circuit found "that an investor could diversify assets 'without considering the wealth a potential buyer would need in order to adequately mitigate risk through diversification.'"<sup>6</sup>

The Tax Court explained its opinion as follows:<sup>7</sup>

In evaluating the potential buyer's ability to diversify the risks associated with the partnership, we assumed that the buyer could be an entity owned by multiple owners. Examples of such an entity include a publicly-traded timber company, a real-estate investment trust, or a hedge fund. The unique risk associated with the 41% limited-partner interest would have been diversified because the entity's owners—wealthy or not—could hold other assets outside the entity.

After further explaining the rationale for halving the estate valuation expert's 3.5 percent partnership-specific risk premium, the Tax Court implemented the estate valuation expert's 3.5 percent partnership-specific risk premium.

Finally, the third adjustment the Tax Court made was to recalculate the 41.128 percent limited Partnership interest.

After assigning a 0 percent weighting to the net asset value method and a 100 percent weighting to the discounted cash flow method, clarifying their original rationale for halving the estate valuation expert's partnership-specific risk premium, and implementing the estate expert's 3.5 percent partnership-specific risk premium, the Tax Court concluded that the total fair market value of the Partnership was \$45,240,000 on a noncontrolling, marketable value basis.

The Tax Court then applied a 25 percent discount for lack of marketability and concluded that the total value of the Partnership was \$33,930,000 on a noncontrolling, nonmarketable value basis.

The Tax Court's recalculated fair market value for the Subject Interest was \$13,954,730 on a noncontrolling, nonmarketable value basis—7.4 percent higher than the estate valuation expert's value conclusion.<sup>8</sup>

## SUMMARY AND CONCLUSION

The significance of this judicial decision is that it involved a partnership that had a much greater value in liquidation than as a going concern. It is

also significant that the Tax Court was not allowed to impart a so-called imaginary scenario in order to arrive at a fair market value indication.

In general, the Ninth Circuit found that the Tax Court erred in several aspects of its valuation calculation. One way to look at this matter is to consider that the Tax Court attempted to move away from the fair market value standard to arrive at the Subject Interest value.

As commonly defined in the valuation literature, fair market value is the price at which a property would change hands between a willing buyer and a willing seller when the former is not under any compulsion to buy, and the latter is not under any compulsion to sell, with both parties having reasonable knowledge of relevant facts.

In this matter, the Tax Court made assumptions regarding the likelihood of an ability to force liquidation and the ability to diversify the Partnership's asset holdings.

None of these assumptions could have been effectuated by the noncontrolling Subject Interest. Therefore, by applying specific assumptions, the Tax Court originally concluded on an investor-specific value and not a fair market value.

On remand, the Tax Court adjusted its assumptions considering the Ninth Circuit's opinion regarding the assigned weight of the net asset value method, the assigned weight of the discounted cash flow method, and the partnership-specific risk premium.

Eleven years after the death of Natale B. Giustina, the Supplemental Opinion appears to be a windfall conclusion for the taxpayer.

### Notes:

1. Estate of Giustina v. Commissioner, T.C. Memo 2011-141 (June 22, 2011).
2. Estate of Giustina v. Commissioner, 586 Fed. Appx. 417 (9th Cir. 2014).
3. Estate of Giustina v. Commissioner, 111 T.C.M. 1551 (2016).
4. Id.
5. Id.
6. Estate of Giustina v. Commissioner, 586 Fed. Appx. 417.
7. Estate of Giustina v. Commissioner, 111 T.C.M. 1551.
8. Id.

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## Redstone v. Commissioner<sup>1</sup>—Service Examines Gift Made 41 Years Earlier

C. Ryan Stewart

*A transfer was made in 1972 and a federal gift tax deficiency notice was issued in 2013.*

*How did that happen? What are the valuation issues? The issues addressed in this discussion include (1) the remoteness of prior transactions in a subject company's stock used as indications of fair market value, (2) how the fact pattern surrounding a transaction can support whether it meets the fair market value standard, (3) the timeliness of deficiency determination notices, (4) what makes a gift a gift, and (5) an unnecessary examination by the Internal Revenue Service (the "Service").*

### BACKGROUND

National Amusements, Inc. (NAI) was incorporated in 1959 as a means to consolidate various interests in certain Redstone family entities operating in the drive-in movie theater business. Mickey Redstone and his two sons, Edward and Sumner, contributed their stock in the pre-existing family drive-in movie companies to NAI.

Mickey, Edward, and Sumner contributed \$30,328 in stock and \$3,000 in cash, \$17,845 in stock, and \$18,445 in stock, respectively. In return, they each received 100 shares of the common stock of NAI. This inconsistency between the value of the contributions and the number of shares issued, proved to be problematic several years later.

In 1968, Mickey gifted 50 shares of his NAI stock to a trust he created for his grandchildren and exchanged his remaining 50 shares for 86,780 shares of NAI preferred stock. As a result, Mickey became the NAI sole preferred stockholder, and the NAI common stockholders were Edward, Sumner, and the trust for Mickey's grandchildren.

In 1971, Edward decided to leave NAI and wanted possession of his stock certificates in order to sell them or have NAI redeem them at an appropriate price.

Mickey refused to deliver the stock certificates to Edward saying that although all of the certificates

were in Edward's name, Edward was actually not entitled to all of the certificates. This was because Mickey had made a larger initial contribution to NAI than Edward.

Mickey contended that the extra shares were subject to an "oral trust" for the benefit of Edward's children.

Edward and Mickey negotiated for six months and could not come to an agreement on terms, so Edward filed lawsuits against Mickey, Sumner, and the Redstone family companies.

After an additional six months of negotiation, on June 30, 1972, it was settled that Edward was the free and clear owner of 66⅔ shares of the NAI stock, and the remaining 33⅓ shares had always been held by Edward for the benefit of his children in trust.

The settlement agreement provided for NAI to redeem Edward's 66⅔ shares based on terms provided in the redemption agreement. The redemption agreement provided for a purchase price of \$5 million in the form of a promissory note.

The promissory note bore interest at the floating prime rate and was to be paid in 44 quarterly installments (of principal and interest) of \$125,000.

The settlement agreement also provided for mutual releases regarding certain claims surrounding Edward's ownership in NAI, Edward's employment at NAI, and other family businesses, as well as Edward's involvement as trustee of all family trusts.



On July 21, 1972 (three weeks after the settlement agreement was executed), Sumner executed irrevocable declarations of trust for his two children (the “Children’s Trusts”).

Sumner reissued 16⅔ of his shares to each of the Children’s Trusts, while the remaining 66⅔ shares were reissued to Sumner.

In 1984, NAI redeemed 83⅓ shares from several trusts for \$257,143 per share or \$21,428,571 in aggregate. All remaining voting common shares were owned directly by Sumner (66⅔ shares) or by the trusts for his children (33⅓ shares).

In 2006, Michael Redstone (Edward’s son) and trustees of certain family trusts filed suit<sup>2</sup> against Sumner, Edward, and NAI for causing NAI to redeem shares from certain family trusts at less than fair market value. The plaintiffs also alleged that more shares of stock should have been transferred to the Children’s Trusts due to the existence of the oral trust.

During the litigation, the trial court concluded that the plaintiffs had failed to prove that the oral trust had ever been created and that the argument that shares were redeemed at less than fair market value was time barred.

Further, at trial, Sumner testified that he had not been compelled to transfer a third of his NAI stock to trusts for his kids through legal means, but had done so voluntarily, consistent with what he wanted to do for his kids and due to his desire to please his father. Sumner also testified that he did not file a gift tax return for the 1972 transfers to the Children’s Trusts based on the determination by his accountants and lawyers that no tax was due.

In 1975, a Service agent examined Sumner’s transfers made to political committees between 1970 and 1972 for potential gift tax liability. After reviewing the documentation and schedules of the transfers, the Service agent concluded that no gift tax return was required for 1972.

In 2011, a Service revenue agent examined Sumner’s 1972 transfers to the Children’s Trusts to evaluate the potential for gift tax liability, unaware of the previous examination that occurred in 1975.

The Service issued a notice of deficiency in January 2013, and Sumner petitioned the Tax Court in April 2013 for redetermination of gift tax deficiency and additions to tax for fraud and negligence.

The disputed issues included the following:

1. Whether the determination of deficiency was timely since it was delivered 41 years after the transfers
2. Whether the taxpayer was unnecessarily subjected to a second examination, thus invalidating the determination of tax deficiency

3. Whether the transfer should be classified as a gift
4. The value of the 33⅓ shares of NAI that were transferred by Sumner on July 21, 1972
5. The justifiability of the additions to tax imposed for fraud and negligence

## THE VALUATION EXPERTS

### The Service Valuation Expert

The Service valuation expert applied the direct capitalization, guideline publicly traded company, and guideline merged and acquired company methods in order to estimate the value of the 33⅓ shares of NAI stock transferred by Sumner on July 21, 1972.

The guideline merged and acquired company method was primarily based on the \$5 million price at which NAI redeemed Edward’s 66⅔ shares on June 30, 1972. The Service valuation expert concluded that the redemption price was:

1. negotiated at arm’s length as evidenced by the six-month negotiation and
2. contemporaneous with the transfer of shares by Sumner.

The Service valuation expert concluded that the \$75,000 per-share value established by the redemption transaction represented a private non-controlling interest transaction that was indicative of the rights and restrictions of a noncontrolling, nonmarketable interest holder. The concluded value from the guideline merged and acquired company method was \$2.5 million.

The Service valuation expert concluded that a discount for marketability of 34 percent was appropriate for the indications of value estimated using the guideline publicly traded company and direct capitalization methods. The resulting indications of value were approximately \$2.4 million and \$2.9 million, respectively.

### The Petitioner Valuation Expert

The petitioner valuation expert applied the engrafting method to estimate the value of the shares transferred by Sumner in 1972.

The engrafting method involved using the \$257,143 per-share price paid to redeem NAI shares from certain trusts in 1984 as the starting point for the analysis.

The petitioner valuation expert calculated ratios of the 1984 redemption price to (1) the NAI average 1981 to 1983 net income and (2) the book value of the NAI common shareholder's equity in 1984. The ratios were then applied to the net income and book value common shareholder's equity on or about July 21, 1972.

The petitioner valuation expert concluded that the value of the 33⅓ shares transferred by Sumner on July 21, 1972, was \$735,981.

## THE JUDICIAL DECISION

### Timeliness of Deficiency Notice

Regarding the statute of limitations and other threshold issues, the burden of proof is on the petitioner. The petitioner argued that the Service was barred from determining in 2013 that there was a tax deficiency for the third quarter of 1972.

The Tax Court determined that because Sumner did not file a gift tax return reporting the 1972 transfers, the notice of deficiency was timely even though it was issued 41 years after the transfer.

### Multiple Examinations

The petitioner further argued that the Service violated the second examination rule by examining books and records surrounding transfers Sumner made in 1972 to 1975 and again in 2011 to 2013, and that the gift tax deficiency should be disregarded.

Section 7605(b) addresses restrictions on examinations of the taxpayer and states that taxpayers are protected from:

unnecessary examination or investigations, and only one inspection of a taxpayer's books of account shall be made for each taxable year unless the taxpayer requests otherwise or unless the Secretary, after investigation, notifies the taxpayer in writing that an additional inspection is necessary.

The Tax Court declined to set aside the deficiency, citing that it has been established that the failure of the commissioner to comply with Section 7605(b) does not invalidate a deficiency.

The Tax Court also noted that a taxpayer may object to what he or she deems to be a second examination by refusing to permit the examination and opposing any enforcement actions.

The Tax Court determined that Sumner and his attorneys complied with all requests associated with

both examinations and did not complain or oppose the examinations until a year after the notice of deficiency was issued. The Tax Court concluded that the petitioner consented to the 2011 to 2013 examination and, thus, waived its rights under Section 7605(b).

### Sumner's July 21, 1972, Transfers as Gifts

The petitioner contended that the 1972 transfers were exempt from federal gift tax because they were made in the ordinary course of business and thereby made at full and adequate consideration.

Sumner argued that he facilitated the settlement of Edward's litigation by creating and transferring shares to trusts at a time when he would not have otherwise done so. Therefore, the transfers were indicative of actions taken in the ordinary course of business and for adequate and full consideration.

The Tax Court determined that there was no dispute regarding Sumner's ownership of the shares and no resulting arm's-length negotiation regarding the value of the shares. The Tax Court further determined that evidence showed that Mickey and Sumner conspired to push Edward out of the business and used the oral trust argument and litigation to achieve that goal.

The Tax Court found no convincing evidence that Sumner's actions facilitated the settlement of Edward's litigation because the settlement agreement:

1. was signed three weeks before Sumner's transfer,
2. did not make Sumner's transfers a condition of the settlement, and
3. did not obligate Sumner to anything other than mutual releases.

The Tax Court, therefore, concluded that the transfers were indicative of donative intent, not done in the ordinary course of business within the meaning of Section 25.2512-8, and should be subject to federal gift tax.

### The Valuation

When the valuation of property transferred for gifting purposes is disputed, the Tax Court has the ability to consider the opinions of experts and accept an expert's opinion in its entirety or make its determination based on its selection of the most persuasive arguments presented by various valuation experts. The Tax Court's conclusions about the respective valuation expert reports are summarized below.

## The Petitioner Valuation Expert

As mentioned previously, the petitioner's valuation expert applied the engrafting method using the price of NAI shares redeemed in 1984 as the basis for the value of the shares transferred by Sumner in 1972.

Generally, events and information known or knowable on or about the valuation date are acceptable for use in estimating fair market value. However, subsequent events, including sales of subject company stock, may be considered as evidence supporting the fair market value of the subject company stock as of a specific valuation date.

In order for subsequent sales of the subject company stock to be a reliable indication of fair market value, the subsequent sales used to estimate value should have occurred reasonably close to the valuation date.

In this case, the subsequent transaction used in the engrafting method occurred 12 years after the date of the 1972 transactions that were the subject of the deficiency notice.

In order to make a supportable or persuasive case for using an indication of value that remote from the specified valuation date, adjustments should be made for changes in such factors as (1) economic conditions; (2) inflation; (3) company operations, financial performance, and risk profile; and (4) industry dynamics.

However, the petitioner's valuation expert did not make any adjustments for changes in factors that could influence the valuation and did not provide support for the lack of adjustments.

Consequently, the Tax Court found the petitioner's valuation expert's report to be unreliable, and it did not address whether the 1984 transfer price was too remote for the valuation of the shares transferred in 1972 or whether the engrafting method was an acceptable valuation method.

## The Service Valuation Expert

The Service valuation expert relied primarily on the price at which Edward's NAI shares were redeemed on June 30, 1972, to value the shares transferred on July 21, 1972.

The Service valuation expert concluded that the price paid for Edward's stock was the result of an arm's-length negotiation and was contemporaneous with Sumner's transfer.

The Tax Court agreed with the Service valuation expert and found that the redemption of Edward's shares was not too remote relative to Sumner's transfer to use as an indication of the NAI stock on July 21, 1972. The Tax Court found that the NAI operations and risk profile as well as the prevailing

market and economic conditions were comparable on the dates of the two transfers.

The fact that the redemption price of Edward's stock was deemed to be the result of an arm's-length negotiation also supported the Tax Court's decision. This conclusion was supported by the fact that each of Mickey, Edward, and Sumner had intimate knowledge of the NAI history, current operations, outlook, and risks associated with that outlook.

The fact that there was a dispute that led to litigation is indicative of the two sides: Edward on one side and Mickey and Sumner on the other, pursuing their own self-interest which was in opposition of the other side.

The negotiations lasted for over a year and resulted in a redemption price of \$75,000 or \$2.5 million for the 33⅓ shares transferred to the Children's Trusts by Sumner in 1972.

## Petitioner's Arguments against the 1972 Redemption Price as Fair Market Value

Fair market value for federal gift tax purposes is defined as the price at which property would change hands between a willing buyer and a willing seller, neither being under any compulsion to buy or sell and both having reasonable knowledge of the relevant facts.

The petitioner argued that the redemption price for Edward's shares did not meet the definition of fair market value for the following reasons:

1. Edward and NAI were compelled to buy or sell the NAI shares.
2. The redemption proceeds were received via a note payable and not in cash.
3. The note was actually worth less than \$5 million because the interest rate was a below-market rate.
4. The redemption price compensated Edward for his 66⅔ shares of NAI stock as well as for the execution of the releases of claims he held against Mickey, Sumner, and NAI.
5. The redemption price reflected the impact of a control premium.

## Edward and NAI Were Compelled to Buy and Sell Shares

The Tax Court found no evidence of any compulsion to buy or sell the 33⅓ shares of stock by Edward or Sumner/NAI/Mickey. The petitioner argued that these compulsions manifested in Mickey's and the NAI's desire to buy the stock so an outsider wouldn't own it and Edward wished to sell it to alleviate financial strain.

The Tax Court found that the fact that the two sides engaged counsel and participated in a year-long negotiations process was indicative of neither side feeling compelled to act. The fact that both sides had reasonable knowledge of the facts and certain leverage over one another was viewed as an incentive to hold out rather than let the other side win by giving in.

### **The Redemption Note Had a Below-Market Interest Rate**

The Tax Court found no evidence that the \$5 million note receivable was actually worth less than face value due to a below-market interest rate. The note payable bore interest at the floating prime rate; the same rate at which NAI borrowed funds from its institutional lender.

Therefore, assuming that the interest rate on NAI borrowings was a negotiated rate that took into account market conditions and risks associated with NAI's ability to pay debt obligations as they came due, it was concluded that the prime rate was an arm's-length market-based interest rate that fully compensated Edward for the risk of nonpayment.

### **Redemption Price Was Compensation for Shares and Releases**

The petitioner contended that the \$5 million redemption price was compensation for the 66% shares of NAI stock and Edward's execution of certain releases of claims held against NAI, Mickey, and Sumner. The assumption being that the releases had value that, once subtracted from the \$5 million redemption price, would result in an NAI share value below \$5 million.

The settlement agreement and redemption agreement provided that consideration of \$5 million be paid to Edward exclusively and specifically as compensation for his stock.

The releases were provided for separately in the settlement agreement whereby each of Mickey, Edward, NAI, and Sumner were to provide mutual releases of claims. There was no mention of monetary consideration in exchange for any of the releases.

Therefore, the Tax Court concluded that there was no reason to believe that any releases given by any particular party were more beneficial or valuable than the releases received by any particular party, and that the \$5 million redemption price was consideration for the shares only.

### **Redemption Price Included a Price Premium for Control**

The petitioner contended that the redemption price included a price premium for control. This was

because, once redeemed, Sumner would have control of NAI.

This argument assumes that Sumner was willing to breach his fiduciary duty to the shareholders of NAI and to the trusts of which he was trustee by redeeming Edward's shares for a price in excess of fair market value in order to gain control of NAI. The Tax Court found it improbable that Sumner would take such action.

The Tax Court rejected this argument, noting that the redemption price was negotiated for over a year. The Tax Court noted that this negotiation was indicative of buyer's and seller's engaging in arm's-length transaction activities.

The Tax Court accepted the Service valuation expert's conclusion that NAI would not have redeemed the shares for more than the price Edward could have negotiated with an unrelated, third-party buyer; noting that an unrelated third party would negotiate a price that reflects the lack of control and the lack of marketability characteristics of the block of shares purchased.

## **CONCLUSION**

This case raises certain considerations that should be taken into account when performing a valuation analysis. Several legal issues, such as the timeliness of the deficiency notice and the second examination rule, among others, may not be issues on which valuation analysts opine.

However, analysts should be aware of these issues and should discuss these issues with counsel in order to understand the valuation engagement and to determine how to best perform the analysis.

Issues such as the remoteness of previous transactions in a company's stock and how the other characteristics of the transaction conform to the definition of fair market value can materially affect the reliability of the valuation analysis.

The valuation analyst should carefully consider these issues and how an analysis may be challenged in order to produce a reliable and defensible valuation analysis.

#### Note:

1. Redstone v. Commissioner, T.C. Memo 2015-237 (December 9, 2015).
2. O'Conner v. Redstone, 896 N.E.2d 595 (Mass. 2008).

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# Deriving a Discount for Lack of Control with Closed-End Fund Pricing

Weston C. Kirk and Nick S. Masters

*From a noncontrolling investor's perspective, closed-end mutual funds serve as a unique benchmark for measuring a discount for lack of control related to closely held investment management companies. This benchmark measures the market-implied price discounts compared to a closed-end fund's net asset value. Beginning with a core understanding of the characteristics and variations of closed-end mutual funds, the rationale for market-implied valuation discounts will be presented, along with an overview of the methodology and the procedures that analysts often use to quantify a discount for lack of control using closed-end fund pricing data.*

## INTRODUCTION

Closed-end fund pricing has been regarded as one of the unsolved mysteries of finance.<sup>1</sup>

Often overlooked, closed-end funds are characterized by share price deviation from a fund's net asset value (NAV). Pricing deviations from NAV are labeled as discounts and premiums, and the rationale behind such deviations have been theorized by numerous studies to represent a variety of factors. NAV is simply defined as the market value of a fund's assets minus liabilities.

The market-implied valuation discount (or, in some cases, pricing premium) to a closed-end fund is the most applicable comparison to a closely held investment management company due to both entities serving similar purposes—to seek returns via a portfolio of assets.

However, a valuation analyst should ensure that a closed-end fund is comparable to the subject company (the company being valued) by considering the similarities of the two in terms of investment holdings and investment objectives.

Essentially, to derive an appropriate discount for lack of control (DLOC) for a closely held investment management company, a statistical analysis of comparable closed-end fund pricing data will provide a starting point. That starting point can then be

adjusted, depending on quantitative and qualitative factors.

## DEFINITION OF A CLOSED-END FUND

A closed-end fund is a pooled investment vehicle in which multiple participants invest in a single, actively managed portfolio of assets. A variation of a publicly traded mutual fund, the closed-end fund is unique in that it only offers a fixed number of common shares (a claim to a portion of the assets) at an initial public offering (the first opportunity to purchase shares of the fund).

As a result, a share of a closed-end fund purchased after the initial public offering must be purchased from another investor as opposed to from the fund itself. With open-end funds, shares are redeemed and issued on a continuous basis, whereas the shares of closed-end funds are simply transferred.

Therefore, the share price of a closed-end fund is generally dependent on the supply and demand of investors in the public market as opposed to solely the fund's NAV.

The concept of closed-end fund pricing is unique. It represents “the only situation where market

valuations exist both for the assets and for the ownership claims on the returns from [the] assets.”<sup>2</sup>

In essence, the concept of closed-end fund pricing represents the foundation for various defining elements that characterize the way closed-end funds operate, perform, and, of particular importance to valuation analysts, deviate from NAV in the form of price discounts and price premiums.

## DETERMINANTS OF CLOSED-END FUND PRICING

Typically, closed-end funds achieve higher returns at the expense of greater risk, while open-end funds provide moderate returns accompanied with moderate risk.

The concept of closed-end fund pricing uniquely positions closed-end funds to pursue higher returns through various means, as outlined below.

### Diverse Investment Holdings

First, closed-end funds do not manage inflows and outflows of cash caused by redemptions and issuances, unlike open-end funds. As a result, closed-end funds can remain fully invested for long periods of time.

This unique characteristic allows for greater flexibility in regard to a closed-end fund’s investment holdings and asset management style since the fund does not need to maintain cash reserves or liquidate assets for the purpose of large investor redemptions.

Due to increased flexibility relative to open-end funds, closed-end funds are capable of investing in less-liquid securities such as thinly traded municipal bonds, small company stocks, and emerging market securities.

Furthermore, closed-end funds are capable of allocating larger portions of capital to less liquid securities relative to open-end funds. An open-end fund is restricted to allocating a maximum of 15 percent of assets to less liquid securities according to the Investment Company Act of 1940.<sup>3</sup>

Although closed-end funds are also regulated under the Investment Company Act of 1940, closed-end funds are not subject to this restriction due to their closed-end nature. As a result, closed-end funds are well positioned to seek returns from less liquid and overlooked securities.

Generally, closed-end funds are classified as either equity or debt funds. However, unique closed-end funds exist such as options arbitrage funds, floating rate funds, and hybrid funds.

The various types of closed-end funds are presented in Exhibit 1.

### Leverage

Closed-end funds commonly employ leverage to maximize returns. As of year-end 2015, approximately 65 percent of closed-end funds employed leverage as part of their investment strategy. Specifically, closed-end funds employ two classifications of leverage consisting of structural leverage and portfolio leverage.

Structural leverage is the predominant form of leverage used among closed-end funds with approximately 87 percent of leveraged funds employing structural leverage.<sup>4</sup>

Closed-end funds apply structural leverage through a process of issuing debt and preferred shares for the purpose of increasing the fund’s portfolio assets.

On the other hand, portfolio leverage is a relatively straightforward form of leverage applied through the purchase of derivatives such as options contracts.

Exhibit 1 Closed-End Fund Classification		
Equity	Fixed Income	Other
<ul style="list-style-type: none"> <li>• General equity funds</li> <li>• Specialized equity funds</li> <li>• Income and preferred stock funds</li> <li>• Convertible securities funds</li> <li>• World equity funds</li> </ul>	<ul style="list-style-type: none"> <li>• U.S. mortgage bond funds</li> <li>• Investment-grade bond funds</li> <li>• Loan participant funds</li> <li>• High yield bond funds</li> <li>• National muni bond funds</li> <li>• World income funds</li> </ul>	<ul style="list-style-type: none"> <li>• Floating rate funds</li> <li>• Options arbitrage funds</li> <li>• Hybrid funds</li> </ul>

Closed-end fund returns are also maximized due to the uncommon amount of leverage permitted under regulations relative to open-end funds. Closed-end funds are capable of leveraging their investments by a maximum of three-to-one (or 33 percent) according to Securities and Exchange Commission (SEC) regulations.<sup>5</sup>

The ability to leverage allows a portfolio manager greater flexibility, as leverage allows one to potentially borrow (i.e., lever) at rates lower than the yield of a particular investment.

For example, a real estate investor may purchase a house (an illiquid asset) with a mortgage (leverage) with the purpose of deriving rental income that yields a higher rate than the interest on the loan.

As straightforward as the concept may be, a potential caveat exists as a general rule of thumb: applying leverage to an investment increases the potential for greater returns, while also increasing the potential for greater losses and increased price volatility.

Overall, due to the flexible operating nature of closed-end funds relative to their open-end counterparts, a greater variety of investment objectives are feasible and easily accessible within the range of closed-end funds available.

Given a closed-end fund's ability to leverage its investments and its flexibility to seek returns from less liquid securities, actively managed closed-end funds are more advantageously positioned to

achieve high returns (with regard to increased risk) relative to most actively managed open-end funds.

Figure 1 compares the number of closed-end funds that employ structural leverage to the number of closed-end funds that employ portfolio leverage.

## Performance

When analyzing the performance of a closed-end fund, more than just the fund's yield on assets must be considered. A closed-end fund's distributions— income distributed to shareholders on a monthly or quarterly basis—should be accounted for, along with the fund's current market price.

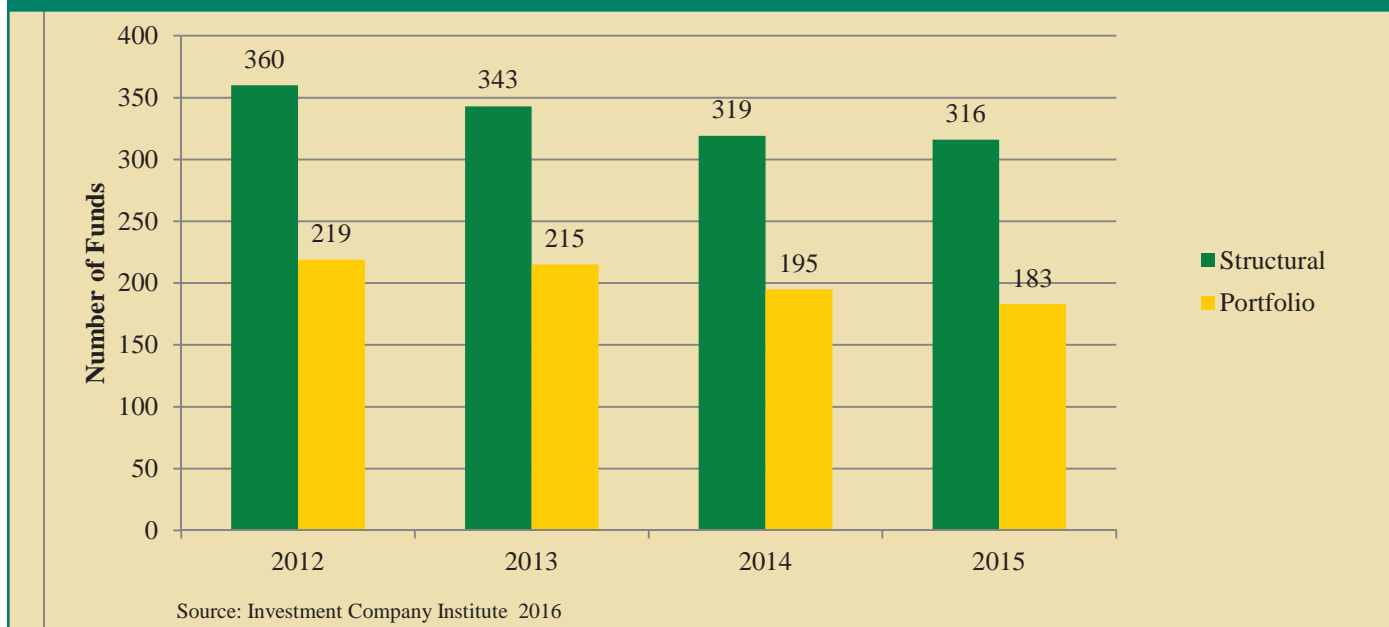
As of year-end 2015, 69 percent of closed-end funds issued distributions to shareholders primarily consisting of interest income and dividend payouts.<sup>6</sup> Generally, distributions are sourced from the return of shareholder capital, realized capital gains, and income in the form of interest and dividends.

A proper measure of performance for a closed-end fund would be to measure its total return in regard to the change in:

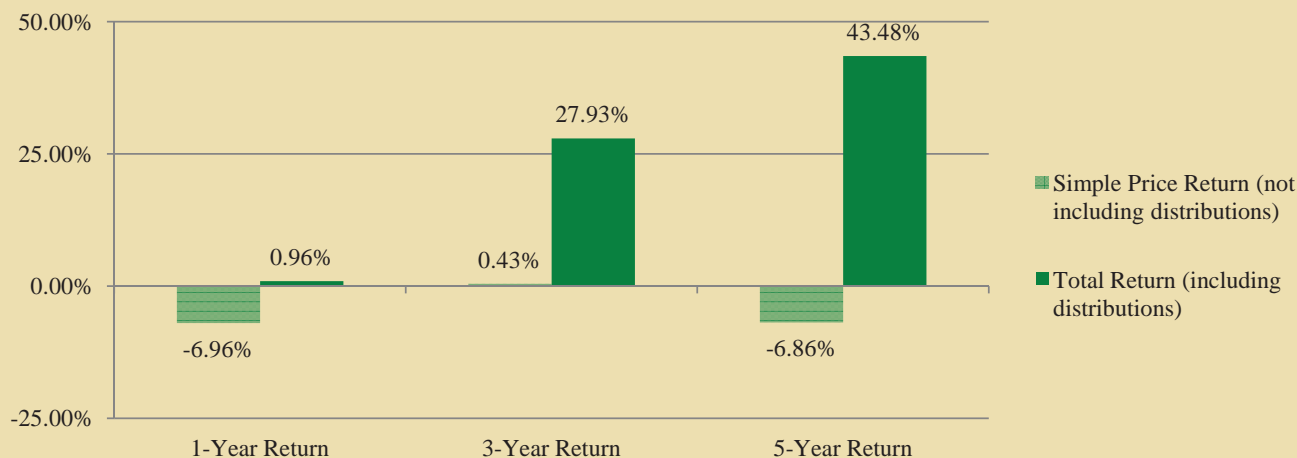
1. the market price of the fund,
2. yield to NAV, and
3. fund distributions for a given time period.

This concept is presented in Figure 2.

**Figure 1**  
**Number of Closed-End Funds Over Time**  
**Structural Leverage versus Portfolio Leverage**



**Figure 2**  
**Closed-End Funds**  
**Simple Price Return versus Total Return as of Fiscal Year-End 2015**



Source: Equity CEFs, BlackRock 2016

According to the Investment Company Institute, total assets of closed-end funds have decreased within the past 10 years. Between 2005 and 2015, total assets have ranged between \$184 billion and \$312 billion, with asset levels still below the pre-recession high of \$312 billion.

A partial reason for lackluster growth in assets of closed-end funds is due to stricter regulations regarding leverage following the financial crisis.

This concept is presented in Figure 3.

Additionally, the Investment Company Institute outlines four factors that have contributed to the poor growth of closed-end fund assets:

First, continued widespread discounts on existing closed-end funds has created an environment in which it is difficult for fund sponsors to launch new closed-end funds. Second, several closed-end funds have repurchased shares through tender offers over the past few years. . . . Third, a few closed-end funds have liquidated each year and others have converted into open-end mutual funds or ETFs. Finally, closed-end fund preferred share assets have declined since the financial crisis of 2008.<sup>7</sup>

### Price Premiums and Price Discounts

Because the share price of a closed-end fund is predominantly determined by supply and demand of market participants, a price discount or price

premium to a fund's NAV is a common characteristic among closed-end funds.

A price discount is defined by a share price that is below the fund NAV, and a price premium is defined as a share price above the fund NAV.

Price discounts and price premiums are typically explained by a multitude of factors that affect investor perception and, thereby, investor demand.

In particular, the degree to which a closed-end fund is discounted from its NAV is the subject of numerous studies that have concluded the following explanations:

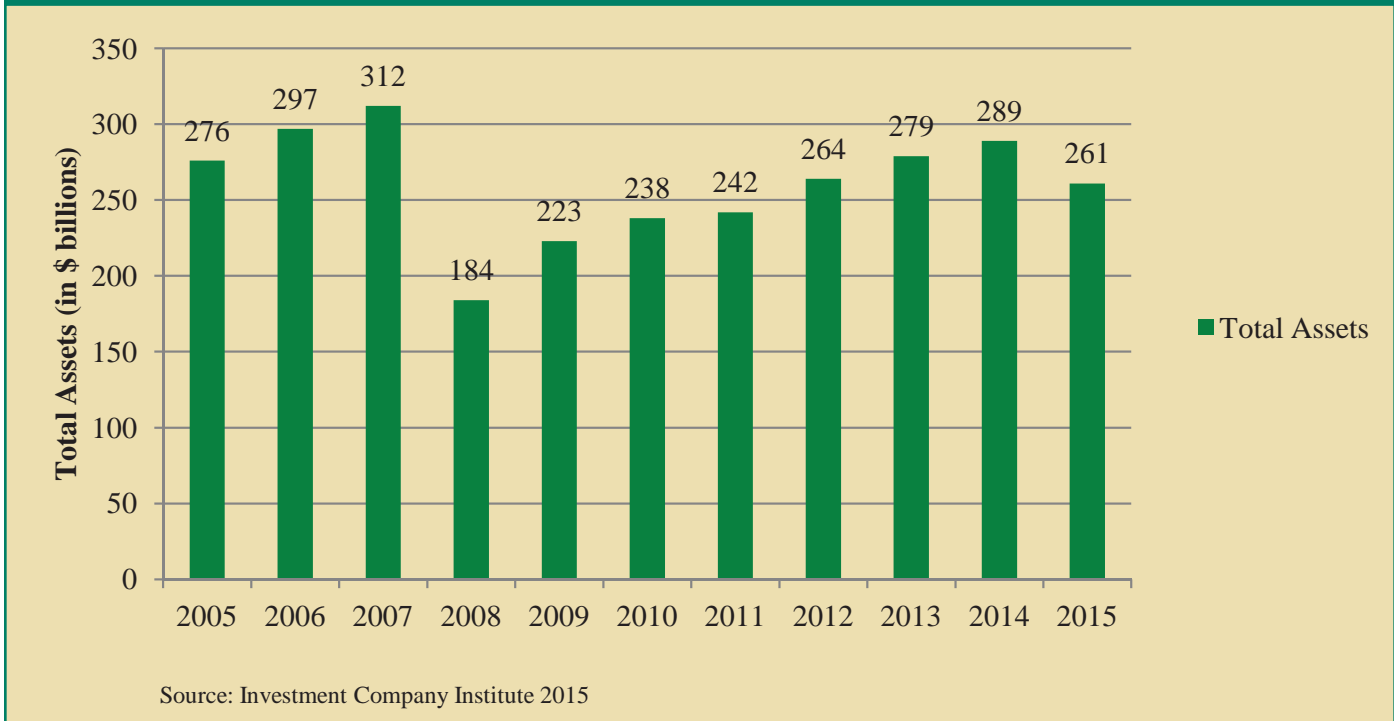
1. Value and cost of management
2. Liquidity of investments and management fees
3. Tax liability associated with opening a fund
4. Fund distribution policy
5. Price volatility
6. Uncertainty relating to the size of the discount
7. Market sentiment

Of the preceding explanations, the most commonly cited explanations for discounts to closed-end funds are a fund's historical distribution policy and market sentiment.<sup>8</sup>

In regard to market sentiment, the discounts applied to closed-end funds are specifically influ-



**Figure 3**  
**Total Assets of Closed-End Funds**



enced by the investment objective and whether or not the primary investment holdings of a closed-end fund are in vogue with investors.

For example, as of fiscal year-end 2015, municipal bond securities appear to be the asset in vogue according to the Investment Company Institute, “price deviations from net asset values on domestic municipal bond closed-end funds narrowed by year-end 2015, reflecting increased investor interest in municipal securities.”<sup>9</sup>

And, as of year-end 2015, the average discount for domestic equity closed-end funds had widened to an average of 9 percent, indicating that equities are falling slightly out of favor among investors.

Overall, the discount applied to a closed-end fund relies on the qualities of the fund itself and investor sentiment. In terms of valuation analysis, explanations of such discounts have the potential to be comparable to a closely held entity under the right circumstances.

## LACK OF CONTROL AND SECURITY VALUATION

One of the most important variables affecting value is the degree of control rights, if any, inherent in the interest being valued. The value associated with

control depends on the ability to exercise any or all of a variety of rights typically associated with control.

As a result, the value of a noncontrolling interest is not necessarily equivalent to the pro rata percent of the value of the entire enterprise or the underlying NAV, such as the case with closed-end fund pricing.

By definition, the holder of a noncontrolling interest lacks ownership control, and has little or no voice in company affairs.

The following list provides examples of some of the more common indicia of ownership control:

- Elect directors and appoint management
- Determine management compensation and perquisites
- Set policy and change the course of business
- Acquire or liquidate assets
- Select people with whom to do business and award contracts
- Make acquisitions
- Liquidate, dissolve, sell out, or recapitalize the company
- Sell or acquire ownership interests
- Register the company’s ownership interests for a public offering

- Declare and pay dividends
- Change the articles of organization, bylaws, operating agreement, and/or other transfer agreements

On the other hand, a private noncontrolling interest investment may not be totally bereft of control factors. For example, a noncontrolling investor may be in a position to cast crucial swing votes and, in some measure, influence important business policies.

A DLOC is based on comparable market investments of ownership interests, which may include the following:

1. Closed-end funds
2. Private equity and hedge fund companies
3. Oil and gas funds and master limited partnerships
4. Undeveloped land program real estate investment trusts
5. Publicly registered limited partnerships
6. Operating real estate investment trusts

In the case of deriving a DLOC for a closely held investment management company, closed-end funds represent the most comparable market investments of noncontrolling interests. A closed-end fund's ownership interests typically trade at discounts relative to the value of the fund's NAV.

This situation occurs because a noncontrolling investment interest lacks unilateral control over a company's underlying assets.

Furthermore, an implied DLOC is derived from a closed-end fund's discount to NAV, assuming the publicly traded nature of a closed-end fund drasti-

cally minimizes or eliminates any effect of (1) a discount for lack of marketability or (2) a discount for lack of liquidity.

## DERIVING A DISCOUNT FOR LACK OF CONTROL

Valuation analysts commonly use a data set of the discounts (or, in some cases, premiums) of comparable closed-end funds for the purpose of estimating a DLOC for a closely held investment management company valuation.

To estimate a discount, valuation analysts typically calculate a mean or median of comparable discount data as a basis for subjective adjustments, considering quantitative and qualitative factors.

Ultimately, the derived discount relies on an appropriate comparison and evaluation of the specific quantitative and qualitative factors of both a closed-end fund and the subject company.

### Procedure 1: Data Sourcing

The first procedure in selecting an appropriate DLOC is selecting a database with the necessary closed-end fund data. There are three primary resources to consider for closed-end fund data: Bloomberg Professional, Thomson Reuters Lipper, and Barron's.

Choosing an online database is preferred for efficiency. However, online databases are expensive to license, so inputting data into an Excel spreadsheet is a more economical alternative.

An adequate source should contain the following closed-end fund data that is as of or before the valuation date:

1. A fund's NAV
2. A fund's corresponding market price
3. A fund's discount or premium to NAV

At the bare minimum, a closed-end fund's NAV and corresponding price are all that are needed as the discount or premium can be calculated by finding the difference between the NAV and the market price (the difference is typically represented as a percentage of NAV). A 12-month dividend yield may also be helpful to analyze.

### Procedure 2: Investment Holdings Classification

The second procedure is to identify which closed-end fund classification is most relevant to the subject company. When selecting guideline closed-end



funds, investment holdings of a closed-end fund should represent the holdings of the subject closely held investment management company in order to be considered as a comparable security to derive an appropriate DLOC.

Closed-end fund databases typically include classification and holding data; however, such data can be acquired via a closed-end fund's respective website.

Once the valuation analyst has narrowed down the selection of closed-end fund data by classification, further refinement is encouraged to ensure that the most relevant data set is used for the purpose of deriving a DLOC. To further refine a data set, an analyst should consider the specific holdings of the subject company in terms of diversification.

Next, an analyst should eliminate certain closed-end funds containing investments that may not be relevant to the subject company.

For example, if the subject interest represented a diversified domestic equity portfolio, an analyst would refine a selection of comparable data by excluding the following:

1. Sector or industry specific funds
2. Hybrid funds that invest in both equity and fixed income
3. Funds that hold abnormal amounts of cash reserves that are over 50 percent of NAV

Additionally, interval funds, a type of closed-end fund, are generally not considered in a DLOC analysis due to the fact that a majority of interval funds are not publicly traded.

### Procedure 3: Calculate the Initial Discount

Upon compiling comparable closed-end fund data, an analyst should take into consideration outliers present in the data and select either the arithmetic mean or median of the comparable data as an initial discount to the subject interest.

### Procedure 4: Make Adjustments

A valuation analyst should consider relevant quantitative and qualitative factors that may be used as grounds for final adjustments to the initial discount.

A valuation analyst's judgement and ultimate determination should carefully consider the market data available and the facts of the specific case at hand before reaching a final DLOC determination.



### Quantitative Factors

To further refine a comparable closed-end fund data set, specific quantitative data can be derived from a fund's prospectus such as leverage, diversification, and age of the entity.

The quantitative data that may result in an adjustment include the following:

- Asset Diversification. The greater the diversification of assets, the lower the discount, as lower business risk is associated with adequate diversification.
- Leverage as a Percentage of NAV. Higher leverage increases the DLOC given that increased leverage has the potential to increase risk and price volatility.
- Fees Charged for Management Expenses. The fees charged for management expenses may exaggerate a closed-end fund's discount or premium that may not be representative of the subject company.

### Qualitative Factors

In order to arrive at a DLOC for a subject company, certain qualitative criteria are generally considered by valuation analysts as means for adjustments to the initial discount.

Relevant qualitative factors that differentiate closed-end funds from closely held investment management companies include the following:

- Closed-end fund investors can vote, by required majority or supermajority margins, to open-end or liquidate a fund, or reorganize the directors and management of a fund.

According to Thomas J. Herzfeld Advisors, Inc., in the three-year period between mid-1997 and 2000, approximately

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**“A closely held investment management company that does not distribute substantially all of its income may have a greater DLOC.”**

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170 closed-end funds were liquidated, reorganized, or open-ended. Therefore, if the subject interest is nonvoting, an additional valuation adjustment for lack of voting rights may need to be added.

- Closed-end funds are strictly regulated under the Investment Company Act of 1940 and other laws and regulations.

Closed-end fund investors can seek regulatory action from the exchange authorities on which the fund is listed, the National Association of Securities Dealers for over-the-counter traded funds, and the SEC.

- In order to maintain favorable tax treatment, closed-end funds must distribute substantially all income to their shareholders in cash periodically during the year.

A closely held investment management company that does not distribute substantially all of its income may have a greater DLOC.

- Many closed-end funds have so-called “lifeboat” provisions which allow the board of a fund to make tender offers to shareholders when the price to NAV discount of the closed-end fund is greater than a set percent for an extended period of time.

This provision helps reduce any large discounts from NAV.

- Closed-end funds typically have more experienced and greater depth of management than small, closely held investment management companies, which tend to lower the implied DLOC.
- Closed-end funds typically have a much greater diversity within the portfolio of assets under management. Less diversified companies tend to have a greater DLOC.
- Company-specific risks may also tend to increase the DLOC evidenced by the public closed-end fund market. These include key management risk, historical performance, investment volatility, carried interest, and legal/regulatory issues.

## CONCLUSION

This discussion presented an overview of closed-end funds and their application in deriving a DLOC for a closely held investment management company valuation. Valuation analysts should understand the structure, management, and underlying investments of comparable closed-end funds before using such factors as a basis for a DLOC.

Comparisons from a quantitative and qualitative standpoint should be made to derive an appropriate DLOC for the subject investment interest.

In measuring a DLOC, certain closed-end funds may be removed from a guideline data set and additional risks may be added to the market-implied discount provided within the transaction data. Nevertheless, a valuation analyst’s judgement and ultimate determination should carefully consider the market data available and the facts of the specific case at hand before reaching a final DLOC determination.

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*Best Practices*

# Determining the Discount for Lack of Marketability with Put Option Pricing Models in View of the Section 2704 Proposed Regulations

John E. Elmore, JD, CPA

*Proposed regulations under Internal Revenue Code Section 2704 introduce the use of a six-month put option to estimate the discount for lack of marketability of business ownership interests for gift, estate, and generation-skipping transfer tax transactions. This discussion outlines the various put option models often relied on by valuation analysts to estimate the discount for lack of marketability.*

## INTRODUCTION

Business valuations prepared for gift and estate tax purposes usually involve the valuation of a privately held company, which are nonmarketable (or, at best, privately marketable).

In these valuations, the valuation analyst (analyst) typically estimates the value of the company first as if the underlying shares were publicly marketable. Then, the analyst incorporates a discount for lack of marketability (DLOM) to reflect the fact that the underlying shares are nonmarketable (or privately marketable).

The Internal Revenue Service (the “Service”) has issued long-anticipated proposed regulations under Internal Revenue Code Section 2704 that attempt to substantially reduce the application of valuation discounts to intrafamily transfers of interest in entities (such as corporations, partnerships, or limited liability companies).<sup>1</sup>

If initial interpretations prove correct, these regulations may restrict the DLOM to the value of a six-month put option.

This restriction stems largely from the creation of a new category of “disregarded restrictions.” Some commentators have viewed this new category

of restrictions as effectively valuing transfers of interests in family-controlled entities as if the holder of the interest has a put right to sell the interest to the entity within six months for a value at least equal to a pro rata part of the net value of the entity in return for cash or property.

This discussion introduces and compares put option pricing models to estimate the DLOM for gift and estate tax purposes.

## Brief Background of Section 2704

Section 2704 was enacted in 1990 with the goal of limiting discounts for certain family-owned, or closely held, interests that are transferred to family members.<sup>2</sup>

If an individual and the individual’s family hold voting or liquidation control over a corporation or partnership, Section 2704(a) provides, in general, that the lapse of a voting or liquidation right shall be taxed as a transfer subject to gift or estate tax.

If an “applicable restriction” limits the ability of the corporation or partnership to liquidate, and that restriction can be removed by the family, then Section 2704(b) provides that the restriction is

disregarded in valuing the transferred interest for gift or estate tax purposes.

Under the existing regulations, an applicable restriction does not include “any restriction imposed, or required to be imposed, by any Federal or State law” (or commercially reasonable restrictions imposed by unrelated persons in a financing transaction).

This provision has been interpreted by the Service to mean that default restrictions on the ability of an owner to withdraw from a subject entity could be considered, even though the family could have overridden those restrictions in the governing documents.

Many states have a default rule limiting the ability of a limited partner or member of a limited liability company to withdraw, and the Service stated that the default rule in the regulations has made Section 2704(b) “substantially ineffective.”<sup>3</sup>

The proposed regulations eliminate this default rule by providing that applicable restrictions must be mandated by federal or state law (and thus not permitted to be overridden by the family) in order to be considered in determining the fair market value of the transferred interest.

The proposed regulations further limit the valuation discounts with the introduction of the “disregarded restrictions.”

This new category of restrictions is defined as a provision of the governing documents or applicable law that limits the ability of the interest holder to compel liquidation or redemption of an interest on no more than six months’ notice for cash or property equal at least to what the proposed regulations call “minimum value.”<sup>4</sup>

The regulations do not include specific examples of corporations or limited partnerships or limited liability companies that are merely silent on the ability of a shareholder, limited partner, or member to withdraw and have the interest redeemed by the subject entity.

Commentators generally have read into the proposed regulations a deemed put right. They note that the disregarded restrictions provision may have very little impact on valuation if it is not interpreted to value transferred interests as if a six-month put right at minimum value exists.<sup>5</sup>

## Overview of the Put Option Pricing Models

A put option, simply stated, is an option to sell financial assets at an agreed price on or before a particular date. Put options are based on financial

option pricing theory. This theory has been used to explain the purportedly “irrational” pricing that is observed in certain situations in the capital markets, as conventional methods may understate the intrinsic value of a financial asset.

Put option pricing models (POPMs) have been applied to estimate the DLOM for private company interests. Despite some shortcomings, POPMs are still one of the few available techniques to actually quantify a DLOM.

Finnerty stated that a lack of liquidity is a form of DLOM that exists when an interest holder cannot dispose of the interest quickly unless the holder is willing to accept a significant reduction in value.<sup>6</sup>

He concluded that this lack of liquidity, and by extension the DLOM, can be estimated based on a POPM:

One can also model the cost of the lack of liquidity as the value of a forgone put option. However, the option formulation is more complex than in the case of the lack of marketability because there is no legal or contractual restriction on the holder’s ability to sell or transfer the asset, and, consequently, the length of the restriction period is less clear. For example, the market for an asset may be poorly developed, making it difficult, time-consuming, and therefore expensive to find a buyer for the securities, but the assets are nevertheless marketable. The restrictions are financial, rather than legal or contractual, and there is no fixed date on which they are scheduled to lapse. It takes more time to find a buyer in an illiquid market than in a liquid market. This loss of flexibility to sell an asset freely or, equivalently, the ability to sell it quickly but only if there is some concession of intrinsic value, can be modeled as the loss of value of a put option.<sup>7</sup>

Chaffe, an early pioneer in applying POPMs to estimate the DLOM, wrote that by purchasing a put option, a restricted stock (i.e., one that is exercisable only at the end of the option period) would reasonably replicate the lapsing of Securities and Exchange Commission (SEC) Rule 144 restrictions.<sup>8,9</sup>

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**“[L]ack of liquidity is a form of DLOM that exists when an interest holder cannot dispose of the interest quickly unless the holder is willing to accept a significant reduction in value.”**

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It is instructive, therefore, to view the results of the POPMs through the lens of restricted stock studies. Exhibits 1a and 1b present a summary of restricted stock studies categorized into three time periods related to changes in the holding period provision of SEC Rule 144.<sup>10</sup>

These restricted stock studies generally indicate a decrease in the average DLOM after 1990. The restricted stocks analyzed in the studies covering the 1968 to 1988 period (where the average indicated DLOM was approximately 35 percent) were generally less marketable than the restricted stocks analyzed after 1990 (where the average indicated DLOM was typically less than 25 percent).

Analysts typically attribute this decrease in price discounts to the following reasons:

1. There was an increase in volume of privately placed stock under SEC Rule 144(a).
2. The minimum SEC-required holding period under Rule 144 was reduced—from two years to one year—as of April 29, 1997.<sup>11</sup>

Increased volume was the result of a Rule 144 amendment in 1990 that allowed qualified institutional investors to trade unregistered securities among themselves. By increasing the potential buyers of restricted securities, the marketability of these securities generally increased.

As it became easier to find a buyer for restricted securities after 1990, the average restricted stock price discount decreased. The same trend occurred after the SEC-required holding period decreased from two years to one year in 1997.

On December 17, 2007, the SEC issued revisions to Rules 144 and 145.<sup>12</sup>

The revisions included shortening the holding period for restricted securities of issuers that are subject to the Securities Exchange Act of 1934 reporting requirements from one year to six months for an issuer that has been a reporting company for at least 90 days. This amendment became effective February 15, 2008.

Valuation analysts typically compare the market for the subject privately held company with the market for restricted securities in view of the expected holding period. If the subject privately held stock is likely to be liquidated within six months, as is the case under the Section 2704 proposed regulations, the post-1997 studies may be the most meaningful (reflecting a holding period of six months to one year).

While the post-2007 studies reflect a more limited holding period of six months, Stockdale points

out that there is no statistical difference in the average DLOM between the SEC Rule 144 one-year and 0.5-year holding periods based on a statistical study of the FMV Opinions Restricted Stock Study through 2011 (the “FMV study”) and Pluris Valuation Advisors DLOM databases.<sup>13</sup>

The FMV study is particularly instructive because it incorporated data from 1980 through 2015, and information is available about each of the 736 restricted stock transactions included in the study.<sup>14</sup>

The companion guide to the FMV study classifies the results into quintiles based on several financial metrics, including volatility, as presented in Exhibit 2.<sup>15</sup> This classification is helpful in evaluating the relevance and application of the available POPMs.

A logarithmic regression analysis of the quintile results suggests that volatility in the range of approximately 65 percent to 105 percent is strongly correlated to the median quintile discounts. This range corresponds to the typical volatility observed for privately held companies. This relationship does not appear to hold for lower volatilities.

The curve fitting of these data is presented in Figure 1.

In conjunction with the FMV study and the other restricted stock studies summarized above, five commonly known POPMs have emerged over the years for estimating the DLOM:

1. The Chaffe model
2. The shout put option model
3. The Longstaff model
4. The Finnerty model
5. The Ghaidarov model

These five POPMs are summarized in Exhibit 3. Their respective application to estate and gift tax matters is discussed in the sections that follow.

## Chaffe Put Option Model

Chaffe introduced the concept of using a POPM to estimate the DLOM.<sup>16</sup> Because a DLOM results from an inability to exercise a right to sell, the cost of the put reflects the DLOM for the shares. The put option value divided by the stock price represents the percentage DLOM.

Like the Black-Scholes model (BSM), the Chaffe model is based on several assumptions characteristic of option models, including the following:

- The option trades on an organized and liquid exchange, providing for efficient trading.



## Exhibit 1a Restricted Stock Study

	Period Covered		Number of Observations	Reported Median	Reported Mean
	From	To			
SEC Overall Average	1966	1969	398	24%	26%
Johnson and Racette	1967	1973	86	NA	34%
Milton Gelman	1968	1970	89	33%	33%
Robert R. Trout	1968	1972	60	NA	34%
Robert E. Moroney	1969	1972	146	34%	35%
J. Michael Maher	1969	1973	34	33%	35%
Stryker/Pittock	1978	1982	28	45%	NA
Wruck, Karen H.:					
Registered	1979	1984	36	2%	-4%
Unregistered	1979	1984	37	12%	14%
FMV Opinions (Hall/Polacek)	1979	1992	100+	NA	23%
Barclay, Holderness, and Sheehan	1979	1997	594	17%	19%
Hertzel and Smith	1980	1987	106	13%	20%
Management Planning, Inc.	1980	1995	49	29%	28%
Management Planning, Inc.	1980	1995	20	29%	27%
Hertzel, Lemmon, Linck, and Rees	1980	1996	404	13%	17%
Willamette Management Associates	1981	1984	33	31%	NA
Silber (1981-1988)	1981	1988	69	NA	34%
Krishnamurthy, Spindt, Subramaniam, and Woidtke:					
All	1983	1992	391	NA	19%
Restricted Shares	1983	1992	75	NA	34%
Shares with Registration Pending	1983	1992	23	NA	23%
Shares Not Known to Be Restricted	1983	1992	293	NA	15%
Shares with Pending Registration or Not Known	1983	1992	316	NA	16%
Wu	1986	1997	301	20%	9%
Bajaj, Denis, Ferris, Sarin:					
All	1990	1995	88	21%	22%
Registered	1990	1995	37	10%	14%
Unregistered	1990	1995	51	27%	28%
FMV Opinions (1991-1992)	1991	1992	NA	NA	21%
BVR (Johnson)	1991	1995	72	NA	20%
Columbia Financial Advisors	1996-April	1997	23	NA	21%
<b>All Studies through 1997</b>				<b>23%</b>	<b>23%</b>

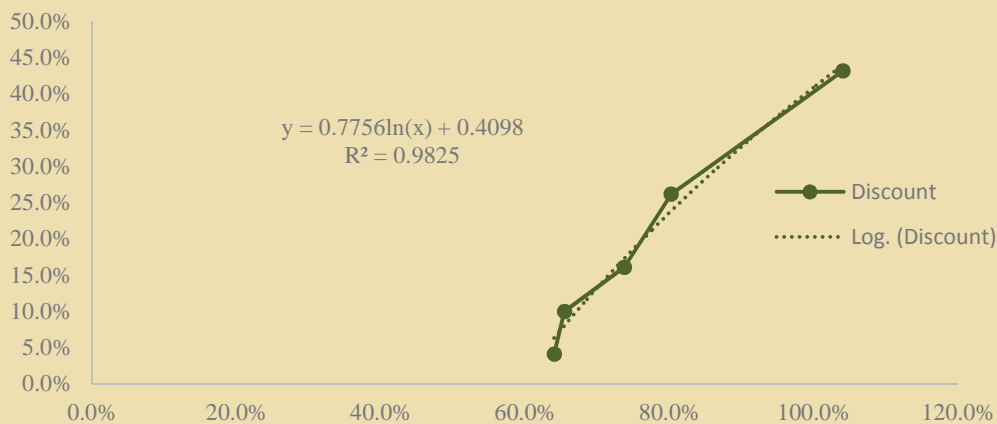
## Exhibit 1b Restricted Stock Study

	Period Covered		Number of Observations	Reported Median	Reported Mean
	From	To			
Columbia Financial Advisors	1996	1997	15	9%	13%
Verdasca	2000	2006	771	10%	10%
Glegg, Harris, Madura, and Ngo	2000	2008	601	8%	9%
Billett and Floros	2001	2008	12,004	27%	NA
<b>All Studies after 1997 and before 2008</b>				<b>14%</b>	<b>11%</b>
Wruck and Wu	1980	1999	1,854	11%	11%
Angrist, Curtis, and Kerrigan (MPI)	1980	2009	1,863	13%	16%
Finnerty:					
Pre-February 1997	1991	2007	41	20%	26%
Post-February 1997	1991	2007	176	16%	22%
FMV Opinions (1997–2007)	1997	2007	NA	16%	20%
FMV Opinions (2001–2007)	2001	2007	NA	13%	15%
Chaplinsky and Haushalter:					
Purchase Discount Only	1995	2000	382	17%	19%
Purchase Discount and Warrant	1995	2000	235	14%	17%
Brophy, Ouimet, and Sialm:					
Hedge Funds - Traditional PIPEs	1995	2002	586	NA	14%
Other Investors - Traditional PIPEs	1995	2002	1,559	NA	9%
Floros and Sapp	1995	2008	14,391	11%	NA
Huson, Malatesta, and Parrino	1995	2009	1,029	12%	12%
Meidan	1996	2006	1,726	NA	10%
<b>All Studies Spanning 1997</b>				<b>14%</b>	<b>16%</b>
Stout Risius Ross	2005	2010	98	9%	11%
FMV Opinions (2008–2011)	2008	2011	NA	10%	12%
Harris-Trugman Valuation Associates					
All	2007	2010	136	14%	17%
Pre-SEC Rule Change	2007	2010	47	15%	18%
Post-SEC Rule Change	2007	2010	89	14%	16%
<b>All Studies Spanning 2008</b>				<b>15%</b>	<b>13%</b>

## Exhibit 2 FMV Opinions Restricted Stocks Study (1980–2015) Results by Quintile

	Quintile				
	1	2	3	4	5
Number of Transactions	147	147	148	147	147
<u>Discount:</u>					
Low	0.0%	7.4%	13.0%	20.9%	33.9%
High	7.4%	13.0%	20.8%	33.5%	91.3%
Median	4.1%	10.0%	16.1%	26.2%	43.2%
<u>Company Characteristics:</u>					
Volatility	64.0%	65.4%	73.7%	80.2%	104.0%
Market Value (\$MM)	183.5	194.2	116.6	102.1	57.7
Market-to-Book Ratio	2.6	3.2	3.6	5.7	6.1
Total Assets (\$MM)	112.9	88.1	37.0	23.1	11.4
Revenue (\$MM)	31.7	42.3	20.9	17.1	8.4
Net Profit Margin	-6.7%	-5.4%	-8.3%	-23.4%	-38.7%

### Figure 1 Curve Fitting to FMV Study Quintile Data Discount as a Function of Volatility



Volatility	65.0%	75.0%	85.0%	95.0%	100.0%	115.0%	125.0%
Implied DLOM	7.6%	18.7%	28.4%	37.0%	41.0%	51.8%	58.3%

## Exhibit 3 Summary of Put Option Pricing Models

POPM	Characteristics	Typical DLOM for Six-Month Holding Period [a]	Strength(s)	Weakness(es)
Chaffe	European fixed strike	14.0% to 33.5%	Based on well-known Black-Scholes-Merton (BSM) option theory; may be more representative of restricted stock studies at lower volatilities than other POPMs	Ignores risk of price increases; indicated DLOM is excessively high at higher volatilities
Shout Put	European fixed strike plus a shout premium	14.0% to 33.5% (same as Chaffe for short holding periods)	Lock in a minimum payout while retaining the right to gain from price increases	Ignores risk of price increases; indicated DLOM is excessively high at higher volatilities; more complicated model
Longstaff (transformed)	American fixed strike lookback	23.9% to 48.0%	Considers risk of price increases during holding period	Assumes perfect market timing ability; may overstate the DLOM at higher volatilities
Finnerty (modified)	Asian-style average strike	8.0% to 18.8%	Considers risk of price increases during holding period without perfect market timing ability	Indicated DLOM is limited to 32.3% regardless of higher volatilities or longer time; tends to produce a minimum DLOM
Ghairadov	Asian-style average strike	8.2% to 25.2%	Considers risk of price increases during holding period without perfect market timing ability	Tends to produce a minimum DLOM
[a] Based on a six-month holding period, a risk-free interest rate of 2.0 percent, and share price volatility in the range of 50 percent to 125 percent.				



- Standardized terms exist for the option contracts.
- Both the interest rate and volatility of the stock price are constant throughout the holding period.
- Stock prices are continuous, which ignores the potential for sudden extreme jumps, such as those often experienced in the aftermath of an announcement of an acquisition or merger.
- The holder possesses some degree of market timing ability (i.e., the holder would sell only if the holder knows the share price will fall below the strike price at expiration).

These assumptions often run counter to economic reality. Holders of restricted stock trade on an organized and liquid exchange and understand that the public company stock will be tradable on the exchange following the restriction period.

The holder of a privately held company equity interest has no access to a comparable exchange and no assurance of a sale. A put option value, therefore, reflects the additional risk of holding privately held company equity interests.

Chaffe relied on the BSM option pricing model to estimate the price of the option in his model. The inputs to the Chaffe model are the same as the BSM model and reflect the adaptation of BSM financial option value theory, which was derived from studies of publicly traded stocks, to privately held company interests.

$$DLOM = \frac{Xe^{-rT} \times N(-d_2) - Se^{-qT} \times N(-d_1) - S + Xe^{-rT}}{S}$$

where

$$d_1 = \frac{\ln\left(\frac{S}{X}\right) + T(r - q + \frac{\sigma^2}{2})}{\sigma\sqrt{T}} \text{ and } d_2 = d_1 - \sigma\sqrt{T}$$

The inputs in the Chaffe model and the effect on DL0M are as follows:

Variable	Variable Description	Effect of Change on DL0M
S	Current price of the security	No effect where S=X
X	Exercise (strike) price	No effect where S=X
N(.)	Cumulative probability function for a standardized normal distribution	No effect

ln(.)	Natural logarithm function	No effect
e	The base of the natural logarithm	No effect
T	Time to expiration (in years)	Increases as time increases
r	Risk-free interest rate	Increases as interest rate increases
q	Dividend yield (if any)	Decreases as yield increases
σ	Annualized volatility of the security price	Increases as volatility increases

In particular, the stock price and strike price equal the marketable value of the privately held company stock as of the valuation date; the time to expiration equals the time the securities are expected to remain nonmarketable after the sell decision has been made (i.e., the holding period); the interest rate is the risk-free cost of capital; and, the volatility, a judgmental factor, is often estimated by reference to the volatility of guideline publicly traded stocks (i.e., the standard deviation of annual returns).

Volatility may be estimated based on a number of approaches, including a review of guideline publicly traded company stock price volatility over various time periods.

Selecting the holding period for a privately held company interest is a matter of professional judgment, but it is seldom less than a few months. The holding period encompasses the period necessary to complete marketing and selling activities, including the following:

- Developing a marketing strategy
- Drafting marketing and selling documents
- Implementing the marketing strategy
- Identifying and screening buyers
- Assisting buyers in their analysis of the company and the interest being sold
- Conducting site visits for buyers
- Drafting letters of intent
- Negotiating with qualified buyers
- Assisting buyers with due diligence
- Drafting the contract of sale
- Participating in arranging financing
- Closing the sale

The relationship between volatility and holding time of stock sales is illustrated in Exhibit 4.

In view of the proposed Section 2704 regulations, the Service appears to assume a maximum holding period of six months for intrafamily transactions. The Service's rationale for the shortened period apparently is based on the assumption that the family could purchase the holder's interest upon request (the deemed put right), thereby eliminating some, if not most, of the marketing and selling activities.

For illustrative purposes, we will assume a risk-free interest rate of 2.00 percent and no dividends. Exhibit 5 presents representative DLOMs based on the Chaffe model with these inputs. According to the Chaffe model, the implied DLOM is between 6.5 percent and 70.3 percent for stocks with volatility between 25.0 percent and 3.0 percent and a holding period of six months.

Chaffe noted that his findings were downward biased due to the reliance on a European put option in his model. For a European put option, the holder is presumed to hold the ownership interest in the privately held company until the end of the holding period, which decreases the option value relative to the American option, which can be exercised ear-

lier. Therefore, Chaffe concluded that his findings may be viewed as a minimum applicable discount.

Chaffe's end-of-period assumption also underscores one of the criticisms of protective puts being a reasonable proxy for the DLOM: it mitigates downside risk but does not address upside risk. Some commentators have suggested that the discount indicated by the put option should be offset by the value of a written call option with terms matching the put option.

According to Chaffe, volatility for a small privately owned company is likely to exceed 50 percent. Chaffe reached this conclusion based on the volatility for small public companies that are traded in the over-the-counter market.

The Chaffe study found that the indicated DLOM for a privately held stock with a six-month required holding period and volatility between 50 percent and 125 percent is between approximately 14 percent and 34 percent.

Although this is a large range for these DLOMs, the results generally are consistent with other DLOM studies such as restricted stock studies and pre-initial-public-offering studies.

In order to analyze the reasonableness of the Chaffe model output, this discussion compares the

## Exhibit 4 Stock Sales



implied DLOM under various scenarios to the results of the FMV study presented in Exhibit 2.

According to the Chaffe model (Exhibit 5), under a one-year holding period and assuming 75 percent volatility, the implied DLOM is 28 percent. This DLOM is similar to the fourth quintile median DLOM of 26.2 percent in the FMV study, which reports 80.0 percent volatility (Exhibit 2).

Stockdale suggests that the Chaffe model is best used at low volatilities (below 50 percent) and the holding period is relatively short because the model tends to generate discounts that exceed the discounts indicated for the observed transaction data.<sup>17</sup>

This deviation is evident for long holding periods. However, for a six-month holding period, it appears that the Chaffe model may be useful at the higher volatilities ordinarily associated with privately held companies.

A comparison of the Chaffe model results to the FMV study discounts summarized in Exhibit 2 and Figure 1 suggests that the Chaffe model results are comparable and may even understate the DLOM, as presented in Exhibit 6.

Indeed, further upward adjustment in the put option value may be warranted to account for information asymmetry and the difficulty in applying the volatility observed for guideline publicly traded stocks to the privately held company.

In *Estimating the Cost of Capital—Applications and Examples*, Pratt and Grabowski explain that certain put option models, like the Chaffe model, tend to understate the DLOM:

The option models are all based on an underlying publicly traded stock. The option model results lack the reality of what an investor would require in terms of fair return, namely an option on a nonmarketable security. Empirical data suggests that institutions active in the “market” for private warrants purchase them at a significant discount to their theoretical Black-Scholes formula value because of their illiquidity, implying greater discounts.

## Exhibit 5 Indicated DLOM Based on the Chaffe Put Option Model

Holding Period (T, Years)	Volatility ( $\sigma$ )								
	25%	50%	75%	100%	125%	150%	200%	250%	300%
0.25	4.7%	9.7%	14.6%	19.4%	24.2%	28.9%	37.9%	46.4%	54.3%
<b>0.50</b>	<b>6.5%</b>	<b>13.5%</b>	<b>20.3%</b>	<b>27.0%</b>	<b>33.5%</b>	<b>39.7%</b>	<b>51.3%</b>	<b>61.5%</b>	<b>70.3%</b>
0.75	7.8%	16.3%	24.5%	32.5%	40.1%	47.3%	60.2%	70.8%	79.3%
1.00	8.9%	18.6%	28.0%	36.9%	45.4%	53.1%	66.6%	77.1%	84.8%
2.00	11.8%	25.2%	37.7%	49.1%	59.2%	67.8%	80.7%	88.5%	92.8%
3.00	13.8%	29.6%	44.1%	56.7%	67.1%	75.4%	86.1%	91.2%	93.3%
4.00	15.2%	33.0%	48.8%	61.8%	72.0%	79.5%	87.9%	91.1%	92.1%

Assumptions:  $S = X$ ,  $r = 2.00\%$ ,  $q = 0\%$

As a result, discounts drawn from restricted stock transactions and implied by put option models underestimate the discount for lack of marketability for stock in a closely held business.<sup>18</sup>

## Shout Put Option Model

Katsanis advocated the application of a shout put option model for estimating the DLOM.<sup>19</sup>

According to Katsanis, the shout put option value serves as an estimate of the marketability and liquidity value embedded within the marketable share value so that the following relationship exists:

$$\text{Marketable Share Value} = \text{Shout Put Value} + \text{Nonmarketable Share Value}$$

The shout put option model is essentially a modification of the Chaffe model. If the risk-free interest rate exceeds the dividend yield and the dividend yield is not zero, the put value concluded by the Chaffe model is multiplied by an exponential adjustment factor based on the expected dividend yield of the subject company security.

## Exhibit 6 Relationship of DLOM Results and Volatility

Volatility	Chaffe Model Implied DLOM	FMV Study Implied DLOM
75.0%	20.3%	18.7%
100.0%	27.0%	41.0%
125.0%	33.5%	58.3%

The equation for the shout put option model is as follows:

$$\text{Put value} = \begin{cases} CM(\cdot), & \text{if } r \leq q \\ CM(\cdot), & \text{if } r > q, \tau \in (0, \tau^*] \\ e^{-q(\tau-\tau^*)}CM(\cdot), & \text{if } r > q, q > 0, \tau \in (\tau^*, \infty) \end{cases}$$

where:

CM(·) = The Chaffe model equation

Katsanis explains:

European style fixed strike, lookback, and Asian put option models have been proposed and utilized by business valuation practitioners to estimate discounts for lack of marketability. Another form of put option, a shout put or shout floor option, more closely mimics marketability than do the previously mentioned forms of put option because both marketability and a shout put option give a stockholder the right to lock in a selling price (the prevailing marketable stock price) for the stock at any point in time over the term of the option. By comparison, over the term of the option the European fixed strike put gives the stockholder the right to lock in a selling price equal to the current stock price; the lookback put gives the stockholder the right to lock in a selling price equal to the highest stock price achieved; and the Asian put gives the stockholder the right to lock in a selling price equal to the average of all stock prices achieved. Because the shout put option more closely mimics marketability than do the alternative put option models, it would be a valuable addition to every valuation practitioner's toolbox.<sup>20</sup>

In his book *Discount for Lack of Marketability*,<sup>21</sup> Gregory, a valuation analyst and former Service agent who led the initial development of the Service's DLOM Job Aid, recommends consideration of the shout put model for holding periods longer than one year, as it may provide a somewhat more accurate estimate of the DLOM than the Chaffe model.

However, for shorter holding periods, such as six months under the proposed Section 2704 regulations, any improved accuracy provided by the shout put option model likely is insignificant and not worth the added complexity.

The DLOM incorporating a 10 percent dividend yield and a one-month differential time period ( $\tau-\tau^*$ ), for example, equals:

$$\begin{aligned} \text{Unadjusted DLOM (per Chaffe model)} &= 20.00\% \\ \text{Adjusted DLOM} &= e^{-q(\tau-\tau^*)} \times 20.00\% = e^{-0.1(0.822)} \times 20.00\% = 19.84\% \\ \text{Change in DLOM} &= \frac{20.00\%}{19.84} - 1 = -0.82\% \end{aligned}$$

The example adjustment represents less than a 1 percent change in the DLOM, which is not statistically significant under ordinary circumstances.

## Longstaff Lookback Put Option Model

Longstaff authored a study that relied on stock options to estimate the upper bound of a DLOM for a privately held company.<sup>22</sup>

Whereas Chaffe based his model on avoiding losses, Longstaff based his model on unrealized gains. Another difference is that the Longstaff model purportedly provides an estimate for the upper limit on the value for marketability. The Longstaff model is based on the price of a hypothetical "lookback" option, which is a type of American option that permits the option to be exercised prior to the expiration date.

A "lookback" put option differs from most other put options in that the holder can look back at the end of the put option's life and retroactively exercise the option at the highest stock price during the holding period, yielding the maximum return.

The Longstaff model assumes an investor has a single-security portfolio, perfect market timing, and trading restrictions that prevent the security from being sold at the optimal time. The value of marketability, based on these assumptions, is the payoff from an option on the maximum value of the security, where the strike price of the option is stochastic.

Longstaff explains:

[Consider] a hypothetical investor with perfect market timing ability who is restricted from selling a security for T periods. If the marketability restriction were to be relaxed, the investor could then sell when the price of the security reached its maximum. Thus, if the marketability restriction were relaxed, the incremental cash flow to the investor would essentially be the same as if he swapped the time-T value of the security for the maximum price attained by the security. The present value of this lookback or liquidity swap represents the value of marketability for this hypothetical investor, and provides an upper bound for any actual investor with imperfect market timing ability.<sup>23</sup>



The equation for the Longstaff lookback put option model is as follows:

Put value =

$$V_0 \left[ \left( 2 + \frac{\sigma^2 T}{2} \right) \times N \left( \sqrt{\frac{\sigma^2 t}{2}} \right) + \sqrt{\frac{\sigma^2 T}{2\pi}} e^{-\frac{\sigma^2 T}{8}} - 1 \right]$$

where:

$N(\cdot)$  = Cumulative probability function for a normal distribution

$T$  = Time to expiration of put option (in years); holding period

$e$  = A mathematical constant—the base of the natural logarithm

$\Pi$  = A mathematical constant

$\sigma$  = Annualized volatility of the underlying security

$V_0$  = Value of the otherwise identical unrestricted interest

Exhibit 7 presents DLOMs based on holding periods from one-quarter of a year to four years and volatility inputs from 25 percent to 300 percent. There is disagreement among valuation analysts whether the results produced by the Longstaff model reflect a liquidity premium or a DLOM.

When comparing the original Longstaff model results (Exhibit 7, wherein results are assumed to reflect a discount) to the FMV Opinions Study results (Exhibit 2), the Longstaff model reports DLOMs that (1) are far greater than the observed discounts from restricted stock transactions and (2) exceed 100 percent at reasonable levels of volatility—an illogical conclusion.

Abbot believes that the Longstaff model results in a premium:

Often, however, the value of a put option premium, estimating the cost of liquidity, is presented

incorrectly as the discount for lack of liquidity. This is similar to the merger premium being treated as a discount for lack of control. Neglecting to convert the option premium to the applicable discount creates the illusion that the estimated discounts are greater than 100%, an impossible solution.<sup>24</sup>

Abbot advocates the following transformation of the Longstaff model in order to convert the model result (assumed to be a liquidity premium) into a DLOM:<sup>25</sup>

$$DLOM = \frac{\text{put value}}{1 + \text{put value}}$$

Exhibit 8 presents DLOMs per the transformed Longstaff model based on holding periods from one quarter of a year to 4 years and volatility inputs from 25 percent to 300 percent. While still representing an upper bound, the transformed Longstaff model results conform more closely to the FMV study than the results of the original Longstaff model. Also, the results do not violate the 100 percent theoretical maximum.

In its DLOM Job Aid, the Service states that the Longstaff model is not often applied by valuation analysts in estimating the DLOM for a privately held company.<sup>26</sup>

The Longstaff model assumes that an investor has perfect timing, which defies economic reality. Longstaff also analyzed securities with a volatility

### Exhibit 7 DLOMs for Original Longstaff Put Option Model Impact of Holding Period and Volatility on DLOM Six-Month Holding Period Highlighted

Holding Period (T, Years)	Volatility ( $\sigma$ )								
	20%	50%	75%	100%	125%	150%	200%	250%	300%
0.25	8.2%	21.6%	33.6%	46.6%	60.4%	75.3%	108.1%	145.2%	186.9%
<b>0.50</b>	<b>11.8%</b>	<b>31.5%</b>	<b>49.8%</b>	<b>70.1%</b>	<b>92.3%</b>	<b>116.7%</b>	<b>172.0%</b>	<b>236.9%</b>	<b>311.9%</b>
0.75	14.6%	39.5%	63.3%	90.0%	119.8%	153.0%	229.9%	321.9%	430.0%
1.00	17.0%	46.6%	75.3%	108.1%	145.2%	186.9%	284.9%	404.0%	545.4%
2.00	24.6%	70.1%	116.7%	172.0%	236.9%	311.9%	494.3%	722.8%	999.2%
3.00	30.8%	90.0%	153.0%	229.9%	321.9%	430.0%	697.5%	1036.8%	1449.8%
4.00	36.1%	108.1%	186.9%	284.9%	404.0%	545.4%	898.9%	1349.8%	1900.0%

Assumptions: S = X, r = 2.0%, q = 0%

## Exhibit 8 DLOMs for Transformed Longstaff Put Option Model Impact of Holding Period and Volatility on DLOM Six-Month Holding Period Highlighted

Holding Period (T, Years)	Volatility ( $\sigma$ )								
	20%	50%	75%	100%	125%	150%	200%	250%	300%
0.25	7.6%	17.7%	25.2%	31.8%	37.7%	43.0%	51.9%	59.2%	65.1%
<b>0.50</b>	<b>10.6%</b>	<b>23.9%</b>	<b>33.3%</b>	<b>41.2%</b>	<b>48.0%</b>	<b>53.8%</b>	<b>63.2%</b>	<b>70.3%</b>	<b>75.7%</b>
0.75	12.7%	28.3%	38.8%	47.4%	54.5%	60.5%	69.7%	76.3%	81.1%
1.00	14.5%	31.8%	43.0%	51.9%	59.2%	65.1%	74.0%	80.2%	84.5%
2.00	19.8%	41.2%	53.8%	63.2%	70.3%	75.7%	83.2%	87.8%	90.9%
3.00	23.5%	47.4%	60.5%	69.7%	76.3%	81.1%	87.5%	91.2%	93.5%
4.00	26.5%	51.9%	65.1%	74.0%	80.2%	84.5%	90.0%	93.1%	95.0%

Assumptions:  $S = X$ ,  $r = 2.0\%$ ,  $q = 0\%$

between 10 percent and 30 percent on the premise that this range of volatility is consistent with typical stock return volatilities; however, small stocks (such as those traded over the counter and analyzed by Chaffee) typically have greater volatility (exceeding 50 percent), all else being equal.

To help mitigate the aforementioned deficiencies, Vianello suggests applying an average volatility input instead of a peak volatility.<sup>27</sup>

Vianello calculates a proxy for the subject company's stock price volatility the annualized average stock price volatility for each of the selected guideline companies for a historical period of time equal to the holding period of the subject company security.

Vianello explains:

It is irrefutable that the cost of illiquidity must be less for the average investor with imperfect market timing than it is for an investor possessing perfect market timing. But the upper bound criticism resulting from this situation is nonetheless defective in the valuation context because it is easily circumvented by using volatility estimates that represent average, not peak, volatility expectations. For example, the appraiser's volatility estimate may be based on some average or regression of historical price volatility derived from an index or from one or more publicly traded guideline companies. Using average volatility estimates in the lookback option formula necessarily

results in a value that is less than the upper bound value. Indeed, a value calculated using average expected volatility necessarily suggests a result that is achievable by the average imperfect investor. The resulting value determined in this manner appropriately falls short of a value based on perfect market timing while providing an important informational symmetry

lacking in Dr. Longstaff's more simplified framework.<sup>28</sup>

### Finnerty Average-Strike Put Option Model

Finnerty conducted an option-pricing study that "tests the relative importance of transfer restrictions on the one hand and information and equity ownership concentration effects on the other in explaining private placement discounts."<sup>29</sup>

The Finnerty option-pricing study is an extension of the Longstaff study. However, unlike Longstaff, Finnerty did not assume that investors have perfect market timing ability. Finnerty modeled the DLOM as the value of an average-strike Asian put option. That is, the Finnerty model assumes that the strike price would be equal to the arithmetic average of market prices over the holding period, rather than the optimal price.

Finnerty's initial model contained a mathematical error that resulted in DLOMs exceeding 100 percent for long holding periods. Finnerty published a modified model that does not violate the 100 percent theoretical limit.<sup>30</sup>

References to the Finnerty model hereafter in this discussion pertain to the modified version unless stated otherwise.

The equation for the Finnerty average-strike put option model is:

$$DLOM = V_0 e^{-qT} \left[ N\left(\frac{v\sqrt{T}}{2}\right) - N\left(-\frac{v\sqrt{T}}{2}\right) \right]$$

where:

$$v\sqrt{T} = \sqrt{\sigma^2 T + \ln[2(e^{T\sigma^2} - \sigma^2 T - 1)] - 2\ln(e^{T\sigma^2} - 1)}$$

$N(\cdot)$  = Cumulative probability function for a normal distribution

$\ln(\cdot)$  = The natural log function

$e$  = A mathematical constant; the base of the natural logarithm

$q$  = Annualized dividend yield of security

$r$  = Risk-free interest rate

$T$  = Time to expiration of put option (in years)—i.e., holding period

$\sigma$  = Annualized volatility of the underlying security

$V_0$  = Value of the otherwise identical unrestricted interest

Many commentators, including Stockdale, consider the Finnerty model to more closely reflect the discounts observed from the FMV study data than the other POPMs at low volatilities.<sup>31</sup>

As presented in Exhibit 9, the Finnerty model generates DLOMs that are relatively close to the average DLOMs reported in the FMV study at volatility in the range of 50 percent to 100 percent. Assuming 75 percent volatility and a one-year holding period, the Finnerty model returns a DLOM of 16.3 percent (Exhibit 9).

The FMV study indicates a DLOM of 18.7 percent at 75.0 percent volatility (Figure 1).

With regard to his option-pricing study, Finnerty concluded that his model “calculates transferability discounts that are consistent with the range of discounts observed empirically in letter-stock private placements for common stocks with volatilities between 30 per-

cent and 70 percent but the implied discounts are greater than/(less than) those predicted by the model for lower/(higher) volatilities.”<sup>32</sup>

The Finnerty model, as modified, produces no discount in excess of 32.3 percent regardless of ever higher volatilities and longer holding times. This limitation may significantly understate the FMV study implied DLOM for volatilities exceeding 125 percent and a six-month holding period. This point is further illustrated in the summary discussion below.

## Ghaidarov Average-Strike Put Option Model

Ghaidarov developed an average-strike Asian put option model in the course of critiquing the original Finnerty model.<sup>33</sup> As discussed above, Finnerty revised his model as a result of this criticism.

The equation for the Ghaidarov average-strike put option model is as follows:

$$DLOM = V_0 e^{-qT} \left[ 2N\left(\frac{V_T}{2}\right) - 1 \right]$$

where:

$$V_T = \sqrt{\ln[2(e^{T\sigma^2} - \sigma^2 T - 1)] - 2\ln(\sigma^2 T)}$$

$N(\cdot)$  = Cumulative probability function for a normal distribution

$\ln(\cdot)$  = The natural log function

$e$  = a Mathematical constant; the base of the natural logarithm

$q$  = Annualized dividend yield of security

$r$  = Risk-free interest rate

### Exhibit 9

#### Indicated DLOM Based on the Finnerty Put Option Model Six-Month Holding Period Highlighted

Holding Period (T, Years)	Volatility ( $\sigma$ )								
	20%	50%	75%	100%	125%	150%	200%	250%	300%
0.25	2.3%	5.7%	8.5%	11.2%	13.9%	16.3%	20.9%	24.6%	27.5%
<b>0.50</b>	<b>3.3%</b>	<b>8.0%</b>	<b>11.9%</b>	<b>15.5%</b>	<b>18.8%</b>	<b>21.8%</b>	<b>26.6%</b>	<b>29.7%</b>	<b>31.4%</b>
0.75	4.0%	9.8%	14.4%	18.5%	22.2%	25.3%	29.5%	31.5%	32.1%
1.00	4.6%	11.2%	16.3%	20.9%	24.6%	27.5%	30.9%	32.1%	32.3%
2.00	6.5%	15.5%	21.8%	26.6%	29.7%	31.4%	32.2%	32.3%	32.3%
3.00	7.9%	18.5%	25.3%	29.5%	31.5%	32.1%	32.3%	32.3%	32.3%
4.00	9.1%	20.9%	27.5%	30.9%	32.1%	32.3%	32.3%	32.3%	32.3%

Assumptions:  $S = X$ ,  $q = 0\%$

- T = Time to expiration of put option (in years)—i.e., holding period
- $\sigma$  = Annualized volatility of the underlying security
- $V_0$  = Value of the otherwise identical unrestricted interest

The results of the Ghaidarov model closely match the modified Finnerty model for the six-month holding period at volatilities through 125 percent. Unlike the Finnerty model, however, the Ghaidarov model is not limited to the 32.3 percent DLOM threshold. At 150 percent volatility, the DLOM indicated by the model is approximately 25 percent and approaches a DLOM of 100 percent as the volatility increases into perpetuity.

Exhibit 10 presents the Ghaidarov model for various holding periods and volatilities.

Stockdale affirms that the Ghaidarov model behaves properly over time, though cautions against using the model at higher volatilities for long holding periods because the indicated DLOMs with those inputs eventually exceed the discounts implied by the restricted stock studies.<sup>34</sup>

However, with a six-month holding period, the Ghaidarov model indicated DLOMs appear to better conform to the results of the restricted stock studies than the Finnerty model or other POPMs, even at higher volatilities. This point is further illustrated in the summary discussion below.

## Long-Term Equity Anticipation Securities

Related to POPMs, Trout published a study analyzing long-term equity anticipation securities (LEAPS) and the DLOM.<sup>35</sup>

Seaman updated the Trout LEAPS study several times—the most recent update was in September 2013.<sup>36</sup>

Each of these LEAPS studies was conducted using a similar research logic and research design.

A LEAPS is essentially a long-term stock option that offers price protection for up to two years into the future. Therefore, an investor who desires protection against stock price declines can purchase a LEAPS put option. The LEAPS studies examined the cost of buying LEAPS put options and concluded that the cost of the LEAPS put option divided by the stock price indicates the DLOM.

Trout examined nine LEAPS as of March 2003 with options expiring January 2005. The nine LEAPS were for large companies with actively traded securities.<sup>37</sup>

According to Trout, “[t]he data concerning the relative cost of puts as an insurance premium indicate an insurance premium cost equal to about 24 percent of the price. This finding suggests that the minimum discount that one should assign for the lack of marketability of holding privately held stock is at least 24 percent.”<sup>38</sup>

The Seaman study updated and extended the Trout study through November 2012. The Seaman study examined the relationship between the price of the

### Exhibit 10 Indicated DLOM Based on the Ghaidarov Put Option Model Six-Month Holding Period Highlighted

Holding Period (T, Years)	Volatility ( $\sigma$ )								
	20%	50%	75%	100%	125%	150%	200%	250%	300%
0.25	2.3%	5.8%	8.7%	11.6%	14.6%	17.5%	23.7%	30.0%	36.5%
<b>0.50</b>	<b>3.3%</b>	<b>8.2%</b>	<b>12.3%</b>	<b>16.5%</b>	<b>20.8%</b>	<b>25.2%</b>	<b>34.2%</b>	<b>43.7%</b>	<b>53.4%</b>
0.75	4.0%	10.0%	15.1%	20.4%	25.7%	31.2%	42.7%	54.5%	65.8%
1.00	4.6%	11.6%	17.5%	23.7%	30.0%	36.5%	50.1%	63.4%	75.0%
2.00	6.5%	16.5%	25.2%	34.2%	43.7%	53.4%	71.3%	84.6%	92.8%
3.00	8.0%	20.4%	31.2%	42.7%	54.5%	65.8%	83.5%	93.5%	97.8%
4.00	9.3%	23.7%	36.5%	50.1%	63.4%	75.0%	90.5%	97.2%	99.3%

Assumptions: S = X, q = 0%



LEAPS (i.e., the price discount) and the following variables: (1) company size, (2) company risk, (3) latest year profit margins, (4) latest year return on equity, and (5) company industry.

The Seaman study concluded the following:

- Company size: Revenue size has a major effect on the cost of price protection with smaller levels of revenue associated with larger discounts.
- Company risk: Company risk has a large effect on discounts, with higher risk companies, as measured by a company's beta, associated with a larger discount.
- Latest year profit margin: Company profitability has a mild (but not a major) effect on marketability discounts.
- Return on equity: The company's latest year return on equity has some effect on discounts particularly at the lower end of returns. For positive returns on equity, there is a minor effect on discounts.
- Industry: The size of the discount varies by industry, but the discounts vary even more by the individual company.<sup>39</sup>

Seaman made the following observation with regard to the cost of price protection:

[T]he costs of price protection are not constant but vary significantly over time. Economic conditions in November 2008 (recession) caused discounts to double or more over the August 2006 period. By November 2009 economic conditions had moderated. The costs of price protection had gone down by about one-third but were still from 30% to 50% above August 2006 levels.<sup>40</sup>

The LEAPS studies concluded that the observed DLOMs are appropriately viewed as benchmark minimum price discounts when applied to privately held companies, for the following reasons:

1. The underlying securities on which the LEAPS were based are often much larger than the privately held subject company.
2. The underlying securities on which the LEAPS were based are marketable.
3. The LEAPS themselves can be sold at any time during the holding period.
4. There is a known liquidity event (i.e., the sale of the underlying security) for LEAPS.

## Summary of Put Option Pricing Models

The POPM studies discussed above generally indicate similar price discounts to the aforementioned restricted stock studies given certain volatility assumptions. In the Chaffe, Longstaff (transformed), Finnerty (modified), and Ghaidarov models, the indicated DLOM for a privately held company (assuming volatility between 50 percent and 125 percent) ranges from 8.2 percent to 48.0 percent for a six-month holding period.

In the LEAPS studies, the price discount is much lower, but the authors conclude that the indicated price discount represents a minimum DLOM.

Because of their nature, POPM studies generally only consider the factors that affect option pricing: holding period and volatility. Although other factors are considered in the POPMs, the holding period and volatility factors have the greatest impact on the option prices.

Therefore, POPMs may understate the DLOM, as POPMs ignore other factors that may reduce the marketability for privately held securities (e.g., contractual transferability restrictions). The DLOM indicated by a POPM is an appropriate starting point for a DLOM analysis.

In determining a final DLOM, a valuation analyst should consider other relevant factors that may contribute to a lack of marketability for the subject privately held company interest.

Basing the size of the DLOM initially on the volatility and holding period factors appears reasonable. The holding period relates to the duration of time restricted stock must be held and risk relates to volatility. As the restricted stock studies generally indicate, the longer the required holding period, the greater the price discount a buyer demands.

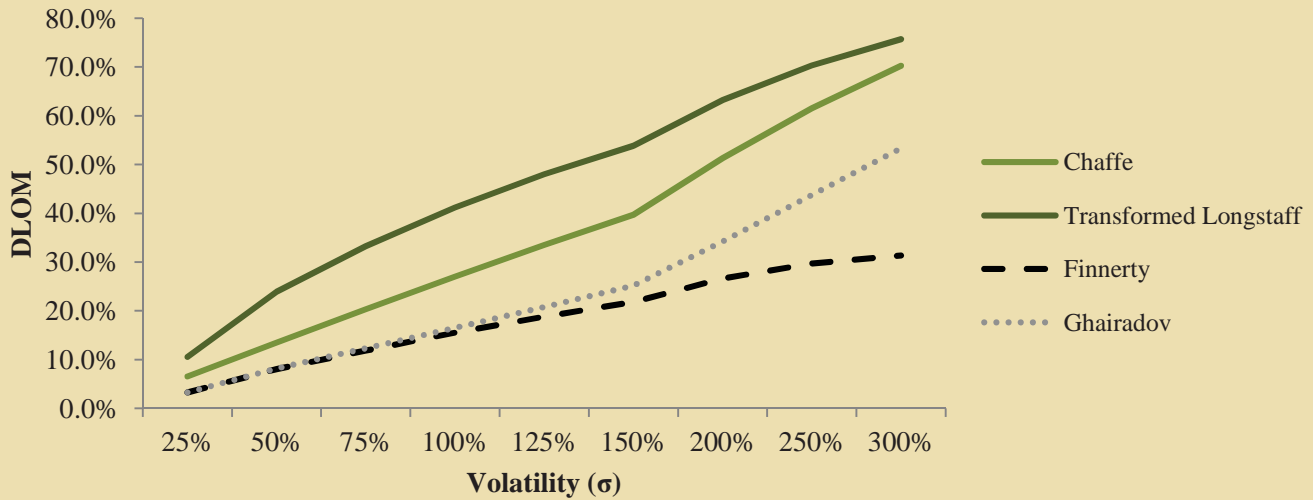
Volatility directly influences the DLOM. When an investor owns a security that is restricted from trading, that investor assumes the risks of:

1. not being able to sell the investment if the value begins to decline and
2. not being able to sell the investment to reallocate funds to another investment.

The first risk factor is affected by highly volatile stocks. Generally, as volatility increases, the risk of stock price depreciation increases along with increases in other risks related to holding a nonmarketable security.

The indicated DLOMs of the POPMs at varying levels of volatility are presented in Figure 2. Some

**Figure 2**  
**Put Option Pricing Models**  
**DLOM per Level of Volatility**  
**Based on Assumed Six-Month Holding Period**



POPMS are suitable at certain levels of volatility and produce results that appear reasonable. However, no POPM appears to line up closely with the restricted stock transactions at all levels of volatility.

For the purpose of estimating the DLOM for a privately held company interest, the typical range of volatility is 50 percent to 125 percent. Within this range of volatility, the Chaffe, Finnerty (modified), and Ghaidarov models produce reasonable DLOMs that do not exceed the median discounts implied by the restricted stock studies.

The Longstaff model (both the original and transformed) produces results that significantly exceed the discounts implied by the restricted stock studies at volatilities above 50 percent. For this reason, among others, the Longstaff model is seldom applied by valuation analysts without further adjustment to determine the DLOM.

At volatilities above 150 percent, the Finnerty model increasingly produces results that understate the DLOM, as the model produces no discount in excess of 32.3 percent. The Chaffe model suffers the opposite effect—its results spike upward like that of the Longstaff model, eventually exceeding the discounts implied by the restricted stock studies.

As indicated graphically by the results presented in Figure 2, the Ghairadov model is the one that best produces DLOMs that reasonably comport with the discounts implied by the restricted stock studies for all volatilities in the 25 percent to 300 percent range.

As discussed above, the Ghaidarov model and other POPMS provide a useful starting point in determining the DLOM. A valuation analyst should consider the relevance of other factors in addition to the volatility, holding period, and other inputs to the POPM equations.

In *Mandelbaum v. Commissioner*,<sup>41</sup> the Tax Court listed nine factors to consider when determining the DLOM:

1. Financial statement analysis
2. Dividend policy
3. Nature of the company, its history, its position in the industry, and its economic outlook
4. Management
5. Amount of control in the transferred shares
6. Restrictions on transferability
7. Holding period of the stock
8. Company redemption policy
9. Costs associated with a public offering

Further, POPMS were designed to produce results that comport with the discounts of restricted stock studies. But restricted stocks are merely a proxy for estimating the DLOM based on temporary trading restrictions; they do not reflect all of the marketability issues faced by typical privately held companies.

As evidence of this effect, Pluris Valuation Advisors (Pluris) identified two weaknesses with prior restricted stock studies through its LiquiStat study:

1. The lack of measurable parameters with regard to the price discount (for example, was the observed price discount the result of company size or information asymmetry between the buyer and the seller?)
2. The impossibility of establishing two distinct data sets, one completely liquid and one completely illiquid.<sup>42</sup>

Pluris reasoned that the observed price discounts from previous restricted stock studies were likely affected by factors unrelated to illiquidity. These factors including the following:

1. Compensation for control and monitoring
2. Capital scarcity effects
3. Information asymmetry effects

To overcome these perceived weaknesses, Pluris analyzed the pricing of restricted stock in investor-to-investor trades—that is, transactions:

1. not involving the issuer or an affiliate of the issuer and
2. not raising new capital for the issuer.

According to Pluris:

Clearly, the private placement process has facets, beyond just illiquidity, that affect discounts. The solution, or at least part of the solution, might be to take a look at the pricing of restricted stock in investor-to-investor trades, not involving the issuer or an affiliate of the issuer and not raising capital for the issuer.<sup>43</sup>

The data analyzed was from the LiquiStat database of private sales transactions created by Pluris which it observed in a secondary market established under the SEC Rule 144A section 4(1-1/2) exception.

The transactions in this database appear to provide a direct indication of the fair market value of restricted stock because the buyers and sellers are unrelated to the company and more closely resemble the hypothetical buyers contemplated in the fair market value definition.

The range of indicated DLOM appears to be on the high side compared to past restricted stock studies. Notably, these relatively high DLOMs are

derived from transactions with a median holding period of 115 days, or 0.32 years.

In other words, the DLOMs exhibited by the LiquiStat study are associated with a holding period that is much shorter than that which is normally assumed to be present in the restricted stock studies.

As of the date of the Pluris study, the database contained transactions facilitated by Restricted Stock Partners through its Restricted Stock Trading Network.

There were 61 transactions analyzed in the LiquiStat study. The 61 transactions analyzed in the LiquiStat study were completed at an average price discount of 32.8 percent, and a median price discount of 34.6 percent.

The average number of days remaining before the shares sold became available to trade in the public markets was 144 days, which is comparable to the holding period contemplated under the Section 2704 proposed regulations.

The relatively higher implied DLOM of the LiquiStat study (e.g., 34.6 percent versus 18.7 percent for the FMV study with 75 percent volatility) suggests that the impact on DLOM of marketability factors other than stock price volatility and holding time can be significant.

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**“The relatively higher implied DLOM of the LiquiStat study . . . suggests that the impact on DLOM of marketability factors other than stock price volatility and holding time can be significant.”**

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## CONCLUSION

The Service has issued long-anticipated proposed regulations under Section 2704 that substantially reduce the application of valuation discounts to intrafamily transfers of interests in privately held entities. These regulations may restrict the DLOM to the value of a six-month put option.

As a starting point for a DLOM analysis, there are a number of POPMs that a valuation analyst can apply to determining the appropriate DLOM for a valuation governed by Section 2704.

The Chaffe, Longstaff (transformed), Finnerty (modified), and Ghaidarov models provide an indicated DLOM for a privately held entity in the range of from 8.2 percent to 48.0 percent for a six-month holding period.

These results are based on a typical price volatility for a privately held entity ownership interest in the range of 50 percent to 125 percent.

For price volatilities in the range of 25 percent to 300 percent, the Ghaidarov model is the one that best produces DLOMs that reasonably comport with the discounts implied by the FMV study and other restricted stock studies based on a comparison of its results with that of the restricted stock studies.

The Finnerty model, on which the Ghaidarov model is based, is a generally accepted model for estimating the DLOM, but it tends to understate the DLOM at higher volatilities due to a mathematical limit of 32.3 percent imposed by the equation regardless of increasing volatility and holding period time.

The Chaffe and Longstaff models also are flawed by their application at higher volatilities, resulting in DLOMs that exceed the discounts implied by the restricted stock studies.

The Ghaidarov model and other POPMs provide a useful starting point in determining the DLOM. In determining a final DLOM, a valuation analyst should consider the relevance of other marketability factors in addition to the volatility, holding period, and other inputs to the POPM equations.

#### Notes:

1. 81 Fed. Reg. 51413-51425 (Aug. 4, 2016).
2. Codified at 26 U.S.C. §2704.
3. Internal Revenue Service, “RIN 1545-BB71: Notice of proposed rulemaking and notice of public hearing,” *Federal Register* (August 4, 2016): 5.
4. Ron Aucutt, “Proposed 2704 Regulations Are Significant but Not a Disaster,” *Leimberg Estate Pl. Newsletter #2456* (September 28, 2016).
5. Steve R. Akers, “Section 2704 Proposed Regulations,” Bessemer Trust white paper (October 2016), available at [www.bessemertrust.com/advisor](http://www.bessemertrust.com/advisor).
6. John D. Finnerty, “Using Put Option-Based DLOM Models to Estimate Discounts for Lack of Marketability,” *Business Valuation Review* 31, no. 4 (Winter 2013): 166.
7. *Ibid.*
8. David B.H. Chaffe III, “Option Pricing as a Proxy for Discount for Lack of Marketability in Privately Held Company Valuations,” *Business Valuation Review* (December 1993): 182–6.
9. SEC Rule 144 governs the purchase and sale of stock issued in unregistered private placements. According to the SEC, “When you acquire restricted securities or hold control securities, you must find an exemption from the SEC’s registration requirements to sell them in the

marketplace. Rule 144 allows public resale of restricted and control securities if a number of conditions are met.” See SEC website: <http://www.sec.gov/investor/pubs/rule144.htm>.

10. Based on John Stockdale Sr., *BVR’s Guide to Discounts for Lack of Marketability*, Vol. 1 (2013), 46–54.
11. See, for example, Bruce Johnson, “Restricted Stock Discounts, 1991–95,” *Shannon Pratt’s Business Valuation Update* (March 1999); Rod Burkert, “Cure for Declining Discounts, Deconstruct the Studies,” *Trusts & Estates* (March 2004); and Robert Reilly, “Willamette Management Associates’ Discount for Lack of Marketability Study for Marital Dissolution Valuations,” *American Journal of Family Law* (Spring 2005).
12. 17 CFR Parts 230 and 239, December 17, 2007.
13. Stockdale, *BVR’s Guide to Discounts for Lack of Marketability*, 51–56.
14. The FMV Restricted Stock Study database is available from BVR on a subscription basis. See <https://www.bvresources.com/products/the-fmv-restricted-stock-study>. Data is updated quarterly.
15. “Determining Discounts for Lack of Marketability: A Companion Guide to the FMV Restricted Stock Study,” *Business Valuation Resources* (2016), available at [www.bvresources.com](http://www.bvresources.com).
16. Chaffe, “Option Pricing as a Proxy for Discount for Lack of Marketability in Privately Held Company Valuations”: 182–186.
17. Stockdale, *BVR’s Guide to Discounts for Lack of Marketability*, 196 and 289.
18. Shannon P. Pratt and Roger J. Grabowski, *Estimating the Cost of Capital—Applications and Examples*, 5th ed. (New York: John Wiley & Sons, 2014), 624–626.
19. Marc S. Katsanis, “Stand Up and Shout—It Is Another DLOM Put Model!” *Business Valuation Review* 31, no. 1 (Spring 2012): 48–52.
20. *Ibid.*
21. Michael A. Gregory, *Discount for Lack of Marketability and the IRS* (Roseville, MN: Birch Grove Publishing, 2013), 71.
22. Francis A. Longstaff, “How Much Can Marketability Affect Security Values?” *Journal of Finance* 1, no. 5 (December 1995): 767–774.
23. *Ibid.*
24. *Ibid.*
25. Ashok Abbott, “Discount for Lack of Liquidity: Understanding and Interpreting Option Models,” *Business Valuation Review* 28, no. 3 (Fall 2009): 144–148.

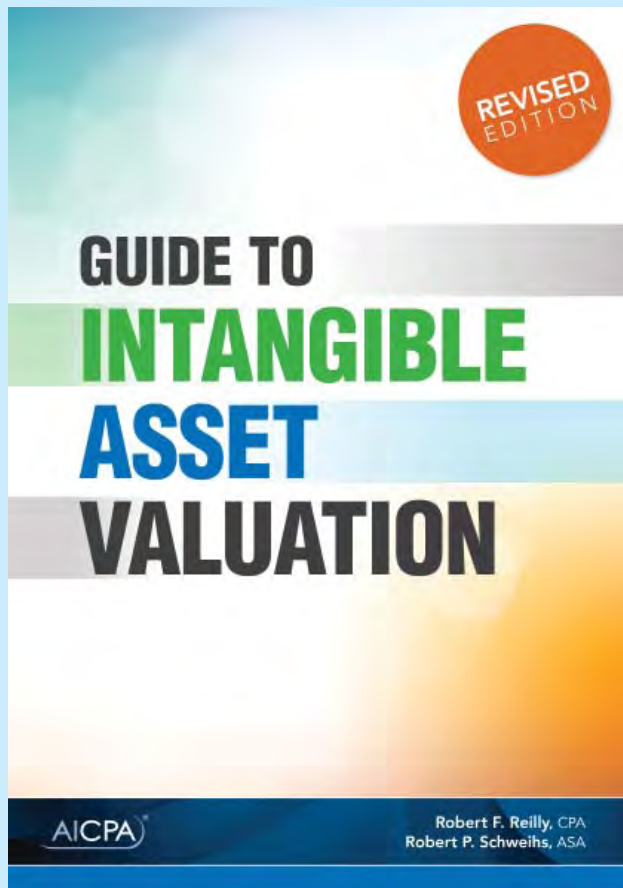
*Continued on page 93*



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by Robert F. Reilly and Robert P. Schweih



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# Guide to Intangible Asset Valuation

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# Valuation of Intrafamily Notes for Gift and Estate Tax Purposes

Ji Young (“Jessie”) Lee

*In estimating the value of a promissory note that a family or family limited partnership issued, there are no safe harbor guidelines provided by the Internal Revenue Service (the “Service”) with regard to appropriate market interest rates, discounts, or methodologies, except for Revenue Ruling 67-276. Revenue Ruling 67-276 states that “the existence of an over-the-counter market for such securities and the quotations and opinions of value provided by brokers and real estate appraisers will not be accepted as conclusive evidence of the fair market value of such securities.” This Revenue Ruling also indicates that the proper way to value promissory notes is to consider all available financial data and all relevant factors affecting the fair market value.<sup>1</sup> However, this indication is too broad for valuation analysts to apply in estimating the value of a promissory note. This discussion (1) examines relevant regulations and judicial decisions and (2) describes the promissory note valuation methodologies covered in the relevant judicial decisions and finance literature.*

## INTRODUCTION

High net worth families often structure intrafamily loans and promissory notes to source needed liquidity for family members.

When a family member—or a related entity (such as a child’s trust)—has a poor credit history or needs capital and cannot get a loan from a bank or similar institution, intrafamily loans and promissory notes can provide liquidity.

A loan and a promissory note are slightly different. Loan agreements are evidenced by the signing of a loan agreement.

A loan agreement is a contract between the lender and the borrower. A loan agreement sets forth the terms and conditions of the loan and the rights and obligations of both parties.

By contrast, a promissory note is simply a written promise by the borrower to pay a stated amount of principal and interest until a maturity date. A promissory note is also characterized as a negotiable instrument (as a check, which can be endorsed over to another party).

Using a promissory note, instead of a loan agreement, benefits the lender in terms of liquidity. Because a promissory note can be transferred without the borrower’s permission, unless the promissory note restricts a transfer, the lender can transfer ownership of the note fairly easily.

This discussion focuses on estimating the value of promissory notes, although this valuation methodology can also be applied in estimating the value of loan agreements.

This discussion addresses issues concerning the estimation of the fair market value of intrafamily promissory notes (intrafamily notes or notes).

First, this discussion examines relevant gift and estate tax regulations in estimating the value of intrafamily notes.

Second, this discussion delves into relevant court cases and presents note valuation methodologies covered in relevant court cases and finance literature.

Finally, this discussion suggests financial data and relevant factors that valuation analysts may consider in estimating the value of intrafamily notes

within the meaning of Internal Revenue Service Technical Advice Memorandum (TAM) 8229001.

## BONA FIDE LOANS

The Service may treat the transfer of assets and property between family members as a gift, although a promissory note was given in return for the transfer. If the loan is not bona fide or there appears to be an intention that the loan would never be repaid, the Service will regard the transfer as a gift.

Transfers between family members are presumed to be gifts unless the transferor can prove the receipt of “an adequate and full consideration in money or money’s worth.”<sup>2</sup>

However, a taxpayer may rebut that presumption by showing that, at the time of the transfer, the transferor had:

1. a real expectation of repayment and
2. an intention to enforce the loan.<sup>3</sup>

In the *Estate of Lockett v. Commissioner* case, when the transferor made a demand for payment, the promissory notes transferred between family members were treated as loans.<sup>4</sup>

The U.S. Tax Court considered the following factors to determine a real expectation of repayment and an intention to enforce the loan.

The following nine factors were originally listed in *Miller v. Commissioner*:<sup>5</sup>

1. Whether there was a promissory note or other evidence of indebtedness
2. Whether interest was charged
3. Whether there was any security or collateral
4. Whether there was a fixed maturity date
5. Whether a demand for repayment was made
6. Whether any actual repayment was made
7. Whether the transferee had the ability to repay
8. Whether any records maintained by the transferor and/or the transferee reflected the transaction as a loan
9. Whether the manner in which the transaction was reported for federal tax purposes is consistent with a loan

*Miller v. Commissioner* involved a non-interest-bearing unsecured demand note for which a taxpayer made transfers to her son in return.<sup>6</sup>

In this case, the court concluded that the transfer was a gift and not a bona fide loan, based on the fact that “the mere promise to pay a sum of money in the future accompanied by an implied understanding that such promise will not be enforced is not afforded significance for Federal tax purposes, is not deemed to have value, and does not represent adequate and full consideration in money or money’s worth.”<sup>7</sup>

## RELEVANT COURT CASES RELATED TO NOTE VALUATION

Once a promissory note between family members is determined as a deemed gift or includable in an estate, valuation analysts may need to be engaged to estimate the value of the note for tax reporting purposes.

In estimating the value of a promissory note for gift or estate tax purposes, estimating the fair market value of promissory note future cash flow constitutes the fundamental part of valuation.

Treasury Regulation Section 1.148-5(d) defines the fair market value of an investment as “the price at which a willing buyer would purchase the investment from a willing seller in a bona fide, arm’s-length transaction.”

In addition, Regulations Sections 20.2031-(b) and 25.2501-1 define fair market value as “the price at which property would change hands between a willing buyer and a willing seller, neither being under any compulsion to buy or to sell and both having reasonable knowledge of relevant facts.”

For gift or estate tax purposes, the fair market value of a promissory note is “the sum of the unpaid amount of principal and accrued interest to the date of gift or death, unless the evidence shows that the note is worth less than the unpaid amount or is uncollectible either in whole or in part.”<sup>8</sup>

Thus, the burden of proof is on the taxpayer to submit satisfactory evidence that the note is worth less than the face value plus accrued interest.<sup>9</sup>

A good starting point is to review relevant court cases that involve the estimation of the fair market value of promissory notes.

This is because there are no safe harbor guidelines provided by the Service as to appropriate market rates, discounts, or methodologies, except for Revenue Ruling 67-276, which stipulates that market surveys (i.e., bid and ask quotations in the over-the-counter market), quotations, and opinions of brokers and real estate appraisers will not be accepted as conclusive evidence of fair market value.<sup>10</sup>

## Estate of Berkman

In *Estate of Berkman*, Mr. Berkman made several transfers to his daughter and son-in-law between 1968 and 1970 in exchange for five promissory notes with a total face amount of \$275,000.<sup>11</sup>

Each of these five promissory notes was a 20-year unsecured note, bearing 6 percent annual interest, payable monthly, with no payment of the principal until the maturity of the note.

At maturity, the full balance of the principal was due. At the time of his death in 1974, Mr. Berkman owned these five promissory notes and had not reported the transfers as taxable gifts.

In defining the term “taxable gift,” the Tax Court recognized, pursuant to Section 2512(b), that “where property is transferred for less than an adequate and full consideration in money or money’s worth, then the amount by which the value of the property exceeded the value of the consideration shall be deemed as a gift.”

However, the court also considered that an exception to Section 2512 includes all bona fide transfers at arm’s length in which no donative intent presents.<sup>12</sup> Finally, the court held the decedent’s transfers were not at arm’s length within the meaning of Regulations Section 25.2512-8.<sup>13</sup>

The following factors were considered by the court:

1. The decedent was over 75 years old when he began making the transfers in exchange for promissory notes due in 20 years.
2. The decedent took no security on these notes.
3. The notes did not require any principal payments until maturity.
4. In his will, the decedent directed that all his property be divided equally between his daughters.

Taking all of these factors into account, the court held that the estate failed to submit satisfactory evidence that the transfers were at arm’s length and free of donative intent.

Accordingly, the court determined the amount of gift as the difference between the amount of the loans and the fair market value of the promissory notes under Section 2512(a) and (b).<sup>14</sup>

To calculate the fair market value of the promissory notes, the court considered the following factors:

1. The rate of interest available in the market (i.e., the U.S. prime rate) compared to the interest rate of the notes
2. The date of maturity
3. The lack of security
4. The solvency of the debtors

Exhibit 1 presents the fair market value of the first four promissory notes and amounts of gift. Issued in 1972 within three years of the date of death, the fifth note was included in the decedent’s estate—and excluded from Exhibit 1.

The court also held that the promissory notes were includable in the decedent’s gross estate at fair market value on the date of his death, since the decedent died owning the five promissory notes.<sup>15</sup>

The court considered the valuation of notes under Regulations Section 20.2031-4 as follows: “[T]he fair market value of notes, secured or unsecured, is presumed to be the amount of unpaid principal, plus interest accrued to the date of death unless the executor establishes that the value is lower or that the notes are worthless.”

Exhibit 2 presents the fair market value of the five promissory notes on the date of the decedent’s death, including accrued interest.

The court considered that the transfer of \$55,000 by the decedent to his daughter and son-in-law within three years of his death was in contemplation of death. Therefore, this amount was includable in the decedent’s gross estate under Section 2035.<sup>16</sup>

However, the transfer was applied to an exception of Section 2035, where a bona fide transaction for adequate and full consideration exists.<sup>17</sup>

From the promissory note, the decedent received 6.00 percent interest at a time when the U.S. prime rate was only 4.75 percent.

**Exhibit 1**  
**Fair Market Value and Amount of Gift of Promissory Notes**

Issue Date	Face Amount	Fair Market Value	Amount of Gift
November 15, 1968	\$100,000	\$85,000	\$15,000
April 24, 1969	50,000	37,500	12,500
November 19, 1970	30,000	24,000	6,000
November 19, 1970	40,000	32,000	8,000

Source: *Bernat v. Commissioner*, T.C. Memo. 1979-46.



## Exhibit 2 Fair Market Value of Promissory Notes for Estate Taxes

Issue Date	Face Amount	Fair Market Value
November 15, 1968	\$100,000	\$50,080
April 24, 1969	50,000	24,040
November 19, 1970	30,000	13,524
November 19, 1970	40,000	18,032
March 2, 1972	55,000	22,044

Source: Bernat v. Commissioner, T.C. Memo. 1979-46.

Considering the higher interest rate of the note than the market provided, the court held that the loan resulted in a bona fide transfer for adequate and full consideration and the transfer was not includable in the decedent's gross estate.

### *Estate of Smith*

*Estate of Smith* involved the valuation of a promissory note in an original principal balance of \$10.3 million, which was payable over 20 years in equal annual principal payments of \$515,600 with 6.0 percent simple interest computed from inception to the date of payment.<sup>18</sup>

This type of accrued interest resulted in each payment of the note being progressively larger due to the increasing amount of time. There was a dispute as to the promissory notes valued by Ms. Crosby (the decedent) on the date of her death.

This promissory note was not issued between family members, but the valuation methods applied in this case are generally applicable to intrafamily notes.

The original promissory note was issued by St. Regis Paper Company on May 17, 1977, and the required payments due under the note were paid to Mr. Crosby until his death in 1978. His will bequeathed a two-thirds interest in the promissory note to Mrs. Crosby.

Accordingly, on May 17, 1981, two separate promissory notes were executed by St. Regis Paper Company to Mrs. Crosby and Ochsner Medical Foundation (the one-third beneficiary) in exchange for their respective interests in the original promissory note of \$10.3 million.

One promissory note had a face amount of approximately \$5.5 million with yearly principal payments of approximately \$343,733 payable to Mrs. Crosby.

The yearly payments were scheduled to start on May 17, 1982, and end on May 17, 1997. The remaining one-third interest (approximately \$2.7 million) was given to Ochsner Medical Foundation located in New Orleans, Louisiana.

St. Regis Paper Company merged into Champion International Corporation (Champion), a Fortune 500 company, on January 31, 1985. Champion was expected to pay the unpaid note balance of approximately \$5.5 million to Mrs. Crosby.

When Mrs. Crosby died on April 28, 1988, the unpaid principle due under the note approximated \$3.4 million, and the interest required to be paid over the remaining term of the note amounted to approximately \$4.1 million.

In estimating the value of Mrs. Crosby's promissory note, the plaintiff's valuation expert, testifying on behalf of the estate, used a 10.09 percent effective interest rate of a publicly traded bond that Champion issued as a starting point.

The valuation expert then added a series of adjustments to the starting point in order to compensate for the differences between the publicly traded debt of the issuer and the promissory note of the estate.

Exhibit 3 shows a series of adjustments that the expert made to estimate the value of the promissory note.

The adjustments were made based on the following characteristics of the Champion publicly traded debt instruments:

1. Well documented (i.e., prospectus supplement, financial statements, and legal opinions)
2. Tradeable in denominations as low as \$1,000
3. Having significant legal protections in the event of default
4. Having restrictions on the business operations of Champion to provide further security.

The plaintiff valuation expert testified that the absence of these factors were important in determining potential buyers for the estate's promissory note. Additionally, the valuation expert made an adjustment based on a lack of response from the issuer, Champion.

When the valuation expert tried to obtain adequate information for valuation from Champion, he only received a one-page letter with incorrect information about the promissory note. The valuation

expert found it as an indication that a hypothetical purchaser would also have problems obtaining information concerning the estate's promissory note.

Finally, the U.S. District Court for the Southern District of Mississippi found the plaintiff's expert valuation of the promissory note was reasonable.

The court found the plaintiff's valuation was in line with the facts existing at the time that Mrs. Crosby's interest in the promissory note was determined and would have been available to a good faith purchaser at that time.

### *Estate of Hoffman*

*Estate of Hoffman* involved the valuation of two unsecured promissory notes issued from a family partnership held by Mrs. Hoffman (decedent) with a 20-year term.<sup>19</sup>

At the time of her death, the decedent owned a 27.5 percent ownership interest in Clubside, the family partnership owned by the decedent and her family. The estate and the Service disputed the value of the two promissory notes issued by Clubside.

One promissory note was payable to the decedent and the other payable to Hoffman Associates, Inc. At the time of her death, the decedent owned all 7,500 shares of stock in Hoffman Associates, an S corporation.

The estate valuation expert determined the value of the Clubside promissory notes based on a required rate of return on similar investments available in the market.

The estate valuation expert relied on Moody's, Standard & Poor's, and Fitch ratings agencies to find comparable debt securities. In addition, the estate valuation expert considered the lack of marketability discount because the Clubside notes lacked a public market for sale.

Taking account of this lack of marketability, the estate valuation expert concluded an investor would require a rate of return of at least 25 percent higher than the 18 percent return offered by his comparable publicly traded bonds.

### Exhibit 3 Adjustments to Required Yields

Base Yield	10.09%
Adjustments:	
1. Lack of marketability	0.5%
2. Lack of indenture/covenant	1.0%
3. Lack of formal acknowledgement by the borrower	1.0%
4. Subordination to all better documented debt of the borrower	1.0%
5. Uncertainty regarding the legal entity bearing liability	1.0%
6. Unusual payment schedule	0.5%
7. Lack of divisibility	0.5%
Semiannual payout rate	15.6%
Convert to annual convention (note payments on annual basis)	16.2%
Required Yield Used	16.0%
Source: Smith v. United States, 923 F.Supp. 896 (S.D. Miss. 1996).	

Therefore, the estate valuation expert determined the appropriate rate of return for the Clubside notes was 22.5 percent.

The Service valuation expert determined the value based on the timing of payments and the rate of return that a holder of the notes would require.

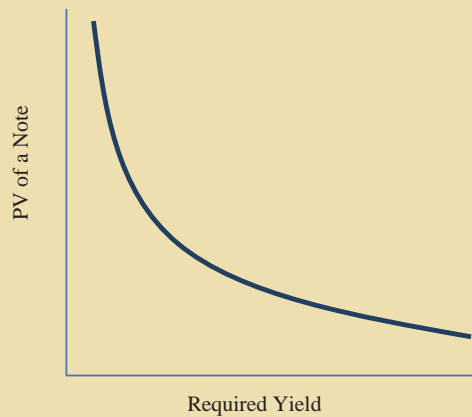
To determine an appropriate rate of return, the valuation expert considered the following factors:

1. Interest rates of various debt securities
2. Corporate bonds of various ratings
3. Interest rates for 30-year conventional mortgages
4. Yields on U.S. Treasury securities
5. U.S. prime rate
6. Venture capital returns

In addition, the Service valuation expert found that the promissory notes did not possess characteristics of highly speculative and default bonds. Based on these factors, the Service valuation expert concluded 12.5 percent as the appropriate rate of return required for the promissory note inclusive of the lack of marketability of the promissory note.

The Tax Court held that a 12.5 percent rate was appropriate and the Service valuation expert correctly valued the promissory notes.

**Figure 1**  
**Relation between Required Yield and Present Value of a Note**



Source: Frank J. Fabozzi, *Handbook of Fixed Income Securities*, 4<sup>th</sup> ed. (Chicago: Richard D. Irwin, 1995).

## NOTE VALUATION METHODOLOGY

In the above three cases, the court considered the fair market value of a promissory note under Sections 20.2031-4 and 25.2512-8. The court and valuation experts offered evidence to prove that the fair market value of a promissory note was lower than the sum of unpaid principal and accrued interest.

In *Estate of Berkman*, the court determined the fair market value of the promissory notes, considering the following factors:

1. Interest rates available in the market as compared to the interest rate of the notes
2. The date of maturity
3. The lack of security
4. The solvency of the debtors

In *Estate of Hoffman*, the Service valuation expert determined the fair market value of the notes based on a required rate of return and the timing of payments.

In estimating the value of promissory notes, both cases used a required rate of return that a note holder would demand of an issuer, considering rates of return on similar investments available in the market as of the valuation date.

The required rate of return applicable to the notes is determined based on the risk inherent in the investment. In other words, an investor (or lender) would accept a rate of return no lower than that available from other investments with equivalent risk.<sup>20</sup>

The value of a financial instrument generating future payments at a specific time is determined by its present value at the transaction date. To the lender, the fair market value of a promissory note equals the present value of future principal and interest payments discounted at a risk-adjusted rate of return to the valuation date.<sup>22</sup>

When the rate of return on the note properly reflects the risk of the borrower, the fair market value of the note equals its principal amount (or its “face value”).<sup>21</sup>

When the risk associated with the future payments of the note becomes greater, the rate of return the lender requires will increase, and, thus, the present value of the note will decrease. The opposite is true when the risk and the required rate decrease.<sup>23</sup>

Figure 1 presents the relationship between the present value of a note and the required yield.

Accordingly, the required rate of return of a note reflects the risk associated with the future payments and determines the fair market value of the note. For example, if a note secures collateral, the required rate of return will be lower than that of an unsecured note.

In *Estate of Hoffman*, to determine an appropriate required rate of return, the Service valuation expert considered rates of return available in the market, such as interest rates of debt securities, corporate bonds ratings, interest rates for conventional mortgages, U.S. Treasury securities yields, the U.S. prime rate, and venture capital returns.

Once an appropriate required rate of return is determined based on inherent risk in the note, a valuation analyst should consider carefully how to calculate the fair market value of the note discounted at such required rate of return to the valuation date.

One example is a promissory note required to pay periodic interest payments with the principal balance due at maturity (similar to an ordinary annuity).<sup>24</sup>

The present (i.e., fair market) value of the periodic coupon payments and maturity value (or par value) is calculated using the following formula according to the *Handbook of Fixed Income Securities*:<sup>25</sup>

$$\begin{aligned}
 PV &= \frac{c}{(1+i)^1} + \frac{c}{(1+i)^2} + \frac{c}{(1+i)^3} \dots + \frac{c}{(1+i)^n} + \frac{M}{(1+i)^n} \\
 &= c \left[ \frac{1 - \left[ \frac{1}{(1+i)^n} \right]}{i} \right] + \frac{M}{(1+i)^n}
 \end{aligned}$$

where:

PV = Present value of a note

c = Periodic interest payment (\$)

n = Number of periods

i = Required yield

M = Maturity value (or face value)

$$PV = c \left[ \frac{1 - \left[ \frac{1}{(1+i)^n} \right]}{i} \right] + \frac{M}{(1+i)^n}$$

$$= 75,000 \left[ \frac{1 - \left[ \frac{1}{(1+0.078)^{11}} \right]}{0.078} \right] + \frac{1,500,000}{(1+0.078)^{11}} = 1,197,232$$

Exhibit 4 provides a simple illustration of fair market value of a promissory note with a face value of \$1.5 million due at maturity.

In this example, the expected principal payment at maturity and interest payments are discounted to the valuation date based on the required yield and are summed to determine the fair market value of the note.

In addition, the present value formula results in the same value as in Exhibit 4.

Exhibit 5 provides an example of valuation of a promissory note with annual principal and interest payments paid over the holding period.

## IRS Technical Advice Memorandum 8229001

In *Estate of Smith*, in order to calculate an appropriate required yield, the plaintiff's valuation analyst made adjustments to the publicly traded debt of the promissory note issuer, increasing the required yield from approximately 10.1 percent to

### Exhibit 4 Note Valuation Table A Note with Annual Interest Payments and Principal Due at Maturity

Terms of the Note:

Principal Balance (or face value)	\$ 1,500,000
Annual Interest Rate	5.0%
Annual Interest Payment	\$ 75,000
Required Yield (market interest rate)	7.8%
Issue Date	12/31/2008
Maturity Date	12/31/2023
Valuation Date	1/1/2013

Year Period	Date	Payment Schedule of Note				Present Value of Note	
		Beginning Principal	Principal Payments	Interest Payment	Ending Balance	PV Factor	PV of Cash Flow
1	12/31/2013	\$ 1,500,000	\$ -	\$ 75,000	\$ 1,500,000	0.928	\$ 69,573
2	12/31/2014	1,500,000	-	75,000	1,500,000	0.861	64,539
3	12/31/2015	1,500,000	-	75,000	1,500,000	0.798	59,869
4	12/31/2016	1,500,000	-	75,000	1,500,000	0.740	55,537
5	12/31/2017	1,500,000	-	75,000	1,500,000	0.687	51,519
6	12/31/2018	1,500,000	-	75,000	1,500,000	0.637	47,791
7	12/31/2019	1,500,000	-	75,000	1,500,000	0.591	44,333
8	12/31/2020	1,500,000	-	75,000	1,500,000	0.548	41,125
9	12/31/2021	1,500,000	-	75,000	1,500,000	0.509	38,150
10	12/31/2022	1,500,000	-	75,000	1,500,000	0.472	35,389
11	12/31/2023	1,500,000	1,500,000	75,000	-	0.438	689,405
Totals			1,500,000	825,000			1,197,232

Discount from Face Value	-20.2%
--------------------------	--------

PV = Present value

**Exhibit 5**  
**Note Valuation Table**  
**A Note with Annual Interest Payments and Principal Payments (Amortization)**

Terms of the Note:

Principal Balance (or face value)	\$ 1,100,000
Annual Interest Rate	5.0%
Annual Principal Payment	\$ 100,000
Required Yield (market interest rate)	7.8%
Issue Date	12/31/2008
Maturity Date	12/31/2023
Valuation Date	1/1/2013

Year Period	Date	Payment Schedule of Note				Present Value of Note	
		Beginning Principal	Principal Payments	Interest Payment	Ending Balance	PV Factor	PV of Cash Flow
1	12/31/2013	\$ 1,100,000	\$ 100,000	\$ 55,000	\$ 1,000,000	0.928	\$ 143,785
2	12/31/2014	1,000,000	100,000	50,000	900,000	0.861	129,078
3	12/31/2015	900,000	100,000	45,000	800,000	0.798	115,748
4	12/31/2016	800,000	100,000	40,000	700,000	0.740	103,670
5	12/31/2017	700,000	100,000	35,000	600,000	0.687	92,734
6	12/31/2018	600,000	100,000	30,000	500,000	0.637	82,838
7	12/31/2019	500,000	100,000	25,000	400,000	0.591	73,889
8	12/31/2020	400,000	100,000	20,000	300,000	0.548	65,801
9	12/31/2021	300,000	100,000	15,000	200,000	0.509	58,496
10	12/31/2022	200,000	100,000	10,000	100,000	0.472	51,905
11	12/31/2023	100,000	100,000	5,000	-	0.438	45,960
Totals			<u>1,100,000</u>	<u>330,000</u>			<u>963,904</u>
						Discount from Face Value	-12.4%

PV = Present value

16.0 percent. The increase in the required yield reflected the risk of the promissory note (due mainly to the limited universe of potential willing buyers of the note), compared to that of publicly traded debt in the market.

In addition, in *Estate of Berkman*, the court considered not only the rate of interest available in the market (the U.S. prime rate), but also the maturity date, the lack of security, and the solvency of the debtors.

The rationale for these adjustments exists in the TAM 8229001.<sup>26</sup>

TAM 8229001 sets forth the meaning of Revenue Ruling 67-276 in determining the value of a mortgage owned by a decedent at the date of death.<sup>27</sup>

According to TAM 8229001, although a sentence of the Revenue Ruling indicates a mortgage that is amply secured must be valued at face value,<sup>28</sup> the meaning of the Revenue Ruling is that “the proper way to value notes and mortgages is to consider all available financial data and all relevant factors affecting the fair market value.”<sup>29</sup>

To discuss what kind of financial data and relevant factors an analyst should consider in estimating the value of a promissory note, the following list of factors provides a brief review of TAM 8229001. These factors are also illustrated in the previously mentioned court cases.<sup>30</sup>

### 1. Presence or Lack of Promissory Note Covenants

Covenants are set forth in an indenture, or a formal debt agreement. They outline certain activities that will (affirmative covenants) or will not (negative covenants) be carried out.

Covenants include working capital requirements, interest coverage ratios, prepayment penalties, debt/equity ratios, and dividend payments. These covenants protect the interests of the lender, and, therefore, reduce the risk for the lender and lower the required yield.



## 2. The Solvency of the Borrower

In *Estate of Berkman*, the court considered the solvency of the borrowers as one of relevant factors in estimating the fair market value of the promissory notes.

Strong debt solvency and repayment capacity of the borrower will result in lower risk for the lender and a lower required rate of return.

## 3. Value of the Security

Both Revenue Ruling 67-276 and TAM 8229001 indicate the value of the security as an important factor in estimating the value of the promissory note. "Security" here specifies collateral or the pledged security of the borrower. The higher the security value, the lower the risk of the lender, and the lower the required rate of return.

## 4. Term of the Note

Investors holding debt instruments face interest rate risk—the risk that the investment value would change due to a change in interest rate. These investors also face reinvestment risk when they cannot reinvest cash flow from the existing debt at the same interest rate as the current rate of return.

The longer the term of the note, the higher the interest rate risk and reinvestment risk, and the higher the required rate of return.

## 5. Comparable Market Yield

In *Estate of Hoffman*, to determine an appropriate required rate of return, the Service valuation expert considered market yields, such as interest rates of debt securities, corporate bond rates, mortgage rates, U.S. Treasury securities rates, the U.S. prime rate, and venture capital returns.

A comprehensive valuation analysis will consider a wide range of financial instruments with different risk and return characteristics.

## 6. Payment History of the Borrower

Payment history of the borrower is important to measure the risk of the borrower. If payments are



current and have been made in a timely manner, the risk associated with the promissory note decreases, and, therefore, the required rate of return decreases.

## 7. Size of the Note

In *Estate of Smith*, the plaintiff's valuation analyst calculated the required yield to discount the promissory note by comparing the note to the publicly traded debt of the issuer (or lender). One of the differences between the promissory note and the publicly traded debt is that the publicly traded debt was tradeable in denominations as low as \$1,000.

Potential buyers of the note will be limited because buying the note requires sizable money to invest. Accordingly, the larger the size of the note, the higher the required rate of return.

In addition, TAM 8229001 states that the effect of Section 20.2031-4 is to recognize "(1) that any principal amount payable in the future normally carries an interest accrual with it and (2) that when the stated interest rate on the obligation is fair (equal to the current market rate of interest for such type of obligation), the total present value of all payments of principal and interest will equal the principal amount of the obligation."<sup>31</sup>

The TAM also indicates that the present value of such payments is less if the stated rate of interest on the note is less than the current market rate of interest.

In summary, under TAM 8229001, the Service has agreed that “all available data and all relevant factors affecting the fair market value must be considered,”<sup>32</sup> in determining the value of a promissory note.

Accordingly, face value plus accrued interest<sup>33</sup> is not necessarily the value to be included in the gross estate or taxable gift. A promissory note can be valued at less than face value plus accrued interest if the donor or estate demonstrates by satisfactory evidence that the value is lower.<sup>34</sup>

## CONCLUSION

Valuation analysts are often asked to estimate the fair market value of a promissory note for gift or estate tax purposes.

The fair market value of a promissory note is the sum of the unpaid principal and accrued interest to the date of gift or death under Section 25.2512-4 and 20.2031-4.

However, these regulations also indicate that the taxpayer may rebut this value by showing evidence that the promissory note is worth less than the sum of the unpaid principal and accrued interest.

This discussion presented note valuation methodologies and various factors the analyst may consider in estimating the value of a promissory note. It also presented a review of relevant court cases and finance literature.

Especially, this discussion clarifies the meaning of TAM 8229001 and its application in estimating the value of promissory notes.

In conclusion, in estimating the value of an intrafamily promissory note, the analyst may need to consider carefully the following:

1. Whether the note represents a bona fide transaction for adequate and full consideration
2. Whether the required yield reflects the inherent risk of the note and its issuer (borrower), considering various factors that this discussion suggests

Accordingly, the analyst may estimate the fair market value of the promissory note future cash flow by discounting the note based on an appropriate required yield.

### Notes:

1. IRS Technical Advice Memorandum 8229001 (February 1, 1982).
2. Treasury Regulations §25.2512-8; 25.2511-1(g)(1).

3. Estate of Lockett v. Commissioner, T.C. Memo 2012-123 (April 25, 2012) at 21 (citing Van Anda v. Commissioner, 12 T.C. 1158, 1162 (1949)).
4. Estate of Lockett v. Commissioner at 22-23, 25-27.
5. Miller v. Commissioner, T.C. Memo. 1996-3 (January 11, 1996).
6. Ibid.
7. Ibid.
8. Treasury Regulations § 25.2512-4, §20.2031-4.
9. Hoffman v. Commissioner, T.C. Memo. 2001-109 (May 9, 2001).
10. Revenue Ruling 67-276, 1967-2 C.B. 321.
11. Bernat v. Commissioner, T.C. Memo. 1979-46 (January 31, 1979).
12. Treasury Regulation. § 25.2512-8.
13. Ibid.
14. IRC § 2512 (a), (b).
15. IRC § 2031.
16. IRC § 2035.
17. IRC § 2035(d).
18. Smith v. United States, 923 F.Supp. 896 (S.D. Miss. 1996).
19. Hoffman v. Commissioner, T.C. Memo. 2001-109.
20. Aaron M. Stumpf and Jesse A. Ultz, “Intra-Family Loan Valuation Issues,” Stout Risius Ross newsletter (Spring 2010).
21. Robert Schweihs, “AFR and the Value of Debt,” *Insights* (Summer 2012).
22. Ibid.
23. Frank J. Fabozzi and T. Dessa Fabozzi, *Handbook of Fixed Income Securities*, 4th ed. (Chicago: Richard D. Irwin, 1995), 55.
24. A series of equal payments made at the end of each period over a fixed amount of time.
25. Fabozzi and Fabozzi, *Handbook of Fixed Income Securities*.
26. IRS Technical Advice Memorandum 8229001.
27. Revenue Ruling 67-276, 1967-2 C.B. 321.
28. Ibid.
29. IRS Technical Advice Memorandum 8229001.
30. Carsten Hoffmann, “The Evolution of Note Valuation,” *Tax Notes* (September 1, 2003).
31. Treasury Regulation §20.2031-4.
32. Ibid.
33. Ibid., Treasury Regulation § 25.2512-4, §20.2031-4.
34. IRS Technical Advice Memorandum 8229001.

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# Comparability of Guideline Publicly Traded Companies in the Valuation of Atypical Companies

Casey D. Karlsen

*A valuation analyst may be retained to value a wide variety of companies for gift and estate tax planning, compliance, or controversy purposes. Such companies may offer unusual products or services (i.e., atypical companies). Regarding the application of the market approach and guideline publicly traded company method in the valuation of an atypical company, there may be an absence of guideline publicly traded companies with products and services that are sufficiently comparable to those of the atypical subject company. In these instances, the analyst can either (1) reject the application of the guideline publicly traded company method or (2) broaden the selection criteria to related industries. Two Tax Court decisions have outlined lists of factors to consider when analyzing the comparability of guideline publicly traded companies. Additionally, several Tax Court decisions have provided insight into the degree of comparability accepted by the Tax Court. The analyst should consider these Tax Court decisions and selection criteria when applying the guideline publicly traded company method in the valuation of an atypical company.*

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## INTRODUCTION

A valuation analyst (analyst) may be retained to value a wide range of companies for gift and estate tax planning, compliance, and controversy purposes.

Valuation engagements may pertain to companies in emerging industries or niche markets, and the analyst may find very little data to rely on throughout the valuation engagement.

This discussion focuses on the application of the guideline publicly traded company (GPTC) method in the valuation of atypical companies. In this discussion, we consider atypical companies to be companies that offer unusual products or services and that have very few direct competitors.

For example, let's consider the following information pertaining to a hypothetical valuation assignment of a hypothetical atypical company, Eyeball

Design, Inc. ("Eyeball Design"). The valuation purpose is for estate tax planning.

The analyst has ascertained the following facts about Eyeball Design:

1. Eyeball Design manufactures nonfunctional prosthetic eyeballs. These prosthetic eyeballs do not have any function beyond aesthetics and do not enable patient vision in any way.
2. In the process of creating nonfunctional prosthetic eyeballs, Eyeball Design starts by taking detailed specifications and measurements of the patient. Eyeball Design then sends these measurements to an outside manufacturer that creates ceramic shells based on these measurements.

Eyeball Design employees then complete the prosthetic eyeball by hand-



painting these prosthetic shells to match the preferences of the patient.

3. There are fewer than 300 prosthetic eyeball manufacturers in the United States.
4. Prosthetic eyeball manufacturing is very different than the manufacturing of other prosthetic appendages. These differences include (a) manufacturing processes, (b) profitability, and (c) relationships with medical facilities and insurance companies. The fixed assets of Eyeball Design resemble those of an art studio.
5. There are no publicly traded prosthetic eyeball manufacturers.

The valuation of an atypical company such as Eyeball Design involves challenges related to the lack of data. Particularly, the analyst may encounter challenges in the selection of GPTCs in the application of the market approach GPTC method.

If an analyst relies on data from GPTCs that are not similar to the company being valued, the analyst risks potentially overvaluing or undervaluing the company and having the value indication from this valuation method disregarded by the Tax Court.

When performing valuations of atypical companies, the analyst should consider both the selection of GPTCs and the weighting of the GPTC method.

## VALUATION APPROACHES

When sufficient and meaningful data are available, a well-reasoned, thorough valuation will consider each of the three generally accepted business valuation approaches:

1. The income approach
2. The market approach
3. The asset-based approach

Within each of these approaches, there are multiple valuation methods that may be applied. Market approach valuation methods that may be applied include (1) the GPTC method and (2) the guideline merged and acquired company method.

The valuation analyst may apply one or more of these valuation approaches—and one or more methods within each selected valuation approach. The value indications from these valuation approaches and methods are often weighted to arrive at a value conclusion.

This discussion focuses on the application of the market approach GPTC method.



## THE MARKET APPROACH GPTC METHOD

Actual market transaction data can be used to present a compelling indication of the value of a company in the market approach GPTC method.

Revenue Ruling 59-60 states that a fundamental consideration in the valuation of a company is “the market price of stocks of corporations engaged in the same or a similar line of business having their stocks actively traded in a free and open market, either on an exchange or over-the-counter.”<sup>1</sup>

As a reliable indication of the fair market value of a company, an analyst may look for market transaction data of ownership interests exchanged in an open and unrestricted market by buyers and sellers that are well-informed and are not under compulsion to buy or sell.

Such data is available to the analyst from the daily transactions in publicly traded companies. In the United States, there are stringent disclosure laws that mandate publicly traded companies to provide relevant data to investors—thus, buyers and sellers have the capacity (and motivation) to be well-informed.

In the GPTC method, an analyst can use securities pricing and financial data related to the GPTCs to calculate the market value of invested capital of the GPTCs.

The analyst can then develop valuation pricing multiples by dividing the market value of invested capital by the underlying financial fundamentals.

Commonly used financial fundamentals include the following:

1. Net sales
2. Earnings before interest and taxes (EBIT)
3. Earnings before interest, taxes, depreciation, and amortization (EBITDA)

In order to estimate the market value of invested capital of a company, an analyst can apply the



## Exhibit 1 Resources Available for Market Data

A number of credible and useful resources are available to aid the analyst in finding GPTCs. Particularly in the valuation of atypical companies, the analyst should apply an extensive search of multiple databases to select GPTCs with a sufficient degree of comparability.

Databases available to the analyst include the following.<sup>[a]</sup>

### **Bloomberg**

Bloomberg is a fully searchable online database that provides financial information on nearly all active and inactive U.S. publicly traded companies and active and inactive international companies. Companies may be searched by industry sectors or by Standard Industrial Classification (SIC) codes. Detailed financial information is available. The information is updated frequently. More information is available at [www.bloomberg.com/professional/](http://www.bloomberg.com/professional/).

### **MergentOnline**

MergentOnline is a fully searchable online database that provides financial information on over 15,000 active and inactive U.S. publicly traded companies and approximately 20,000 active and inactive international companies. Companies are listed by SIC codes and by North American Industry Classification System (NAICS) codes. More information is available at [www.mergentonline.com](http://www.mergentonline.com).

### **S&P Capital IQ**

S&P Capital IQ contains detailed financial and textual information on approximately 79,000 publicly traded companies (both domestic and foreign). The information is derived from documents filed with the Securities and Exchange Commission and similar global stock regulators (as well as proprietary research). The database may be searched by SIC code or by Standard & Poor's industry classifications. Detailed financial information is available. The information is updated frequently. More information is available at [www.capitaliq.com](http://www.capitaliq.com).

### **Thomson ONE**

Thomson ONE is a fully searchable online database that provides financial information on approximately 52,000 public companies and over one million private companies. Companies may be searched by Global Industry Classification Standard (GICS) codes or SIC codes. Detailed financial information is available. The information is updated frequently. More information is available at <http://thomsonreuters.com>.

### **FactSet**

This database provides an equity screener with capabilities to screen using numerous criteria, including industry; business description; financial data such as revenue, EBITDA, or assets; geographic location; and closing price, to name a few. The database contains information on over 73,000 companies worldwide. Over 2,000 unique financial data items are provided. More information is available at [www.factset.com](http://www.factset.com).

### **Pitchbook/BVR Guideline Public Company Comps Tool**

This database includes information on all publicly traded U.S. companies. Users can screen using numerous criteria including industry; business description; financial data such as revenue, EBITDA, or assets; geographic location; and closing price, to name a few. More information is available at [www.bvmarketdata.com](http://www.bvmarketdata.com).

Footnote:

[a] Robert F. Reilly and Robert P. Schweihs, *Guide to Intangible Asset Valuation* (New York: American Institute of Certified Public Accountants, 2013), 137–138.

valuation pricing multiples derived from similar companies to the respective underlying financial fundamentals of the company.

A number of credible and useful resources are available to aid the analyst in finding GPTCs. Particularly in the valuation of atypical companies, the analyst should apply an extensive search of multiple databases to select GPTCs with a sufficient degree of comparability.

The accompanying Exhibit 1 presents descriptions of several databases that are relevant to the application of the GPTC valuation method.

## COMPARABILITY OF THE GPTCS

The GPTC method relies on consideration of the financial fundamentals of publicly traded securities and the financial fundamentals of the subject company. It is imperative to the credibility of the analysis that the GPTCs selected in the analysis have similar characteristics to the subject company.

The underlying characteristics that should be present in a guideline company are summarized in the following quote: “Do the underlying economics driving this comparable company match those that drive our company?”<sup>2</sup>

While the selected GPTCs do not have to be a precise match to the subject company, the characteristics of a guideline company should be such that “the microeconomic factors that drive the guideline companies should be sufficiently similar to the microeconomic factors that drive the subject company.”<sup>3</sup>

Frank M. Burke Jr. succinctly summarizes this pursuit of reasonable comparability in *Valuation and Valuation Planning for Closely Held Businesses*, “Obviously finding a business exactly the same as the enterprise to be valued is an impossibility. The standard sought is usually one of reasonable and justifiable similarity.”<sup>4</sup>

There are rarely (if ever) any companies that are exactly comparable to the company being valued. Comparison to GPTCs is a subjective exercise that results in a spectrum of comparability, with some GPTCs being more comparable and others being less comparable to the subject company.

It should be noted that the GPTCs are *guideline* publicly traded companies and should accordingly be used as a source of pricing guidance to indicate the value of a company.

If an analyst relies on GPTCs that are not sufficiently comparable to the company being valued, the analyst may overvalue or undervalue a company. The market value of invested capital or the financial fundamentals of the GPTCs may be affected by different trends than the company being valued.

For example, the market value of invested capital of the GPTCs may be positively affected by investor speculation of industry growth.

If the company being valued is in a different industry and is not anticipated to have strong growth, the use of pricing multiples from the set of GPTCs with expectations of growth may overvalue the company.

Consider the hypothetical valuation of Eyeball Design. As previously discussed, Eyeball Design manufactures prosthetic eyeballs that do not have any function beyond aesthetics and do not enable vision in anyway. An outside manufacturer provides Eyeball Design with ceramic shells based on detailed specifications and measurements of the customer.

Eyeball Design employees then hand-paint these ceramic shells using unsophisticated equipment, completing the manufacturing process of prosthetic eyeballs.

Suppose the analyst selects Second Sight Medical Products, Inc., as one of the GPTCs. Second Sight Medical Products, Inc. (“Second Sight”) manufactures implantable prosthetic devices to restore functional vision to blind patients. These prosthetic devices use an implantable neurostimulation device that uses electrical stimulation of the retina to replace the function of defunct photoreceptors in retinitis pigmentosa patients.

While both Second Sight and Eyeball Design manufacture prosthetic eyeballs, these companies are fundamentally different. The functionality of the prosthetic eyeballs manufactured by Second Sight offers tremendous value to a patient compared to the nonfunctional prosthetic eyeballs offered by Eyeball Design.

Additionally, the level of sophistication of the manufacturing processes is very different between these two companies.

These substantial fundamental differences may cause the value indication from the GPTC method to overvalue or undervalue Eyeball Design by applying market transaction pricing data that assigns value to factors that may not be present in Eyeball Design.

## COMPARABILITY FACTORS LISTED BY THE TAX COURT

In order to maintain the integrity of a valuation prepared for consideration by the Tax Court, there are a number of factors an analyst should consider when selecting GPTCs.

In two different cases, the Tax Court presented a list of factors to consider when determining comparability. These factors can be considered by analysts when selecting GPTCs.

In *Talichet v. Commissioner*, the Tax Court described six “guideposts in determining comparability”:<sup>5</sup>

1. Capital structure
2. Credit status
3. Depth of management
4. Personnel experience
5. Nature of competition
6. Maturity of the business

In the *Estate of Victor P. Clarke*, the Tax Court listed the following factors relevant to determining the comparability of the company being valued and the GPTCs:<sup>6</sup>

1. Products
2. Markets
3. Management
4. Earnings
5. Dividend-paying capacity
6. Book value
7. Position of company in industry

In addition to the factors presented above, there are a number of additional comparability factors an analyst should consider when selecting GPTCs for the valuation of atypical companies.

Analysts should carefully analyze the financial statements of the subject company and the GPTCs, noting the similarities or differences in liquidity, leverage, activity, anticipated growth, and profitability.

Analysts should also consider historical trends in revenue, expenses, and profitability.

## SCRUTINY OF THE COMPARABILITY OF THE GPTCS

The analyst should proceed with caution when applying the GPTC method for the valuation of an atypical company for gift and estate tax reporting purposes.

Valuations of atypical companies for gift and estate tax planning and compliance purposes may encounter scrutiny by the Tax Court regarding the comparability of the GPTCs.

While the Internal Revenue Service is “one of the strongest proponents of the guideline publicly traded company method,”<sup>7</sup> there are two Tax Court cases discussed below in which the comparability of the GPTCs to the companies being valued was faulted.

While the companies discussed in these two Tax Court cases are not atypical, the level of scrutiny applied to the GPTCs in these valuations provides insight into the degree of comparability accepted by the Tax Court.

In the *Estate of Heck v. Commissioner*,<sup>8</sup> the estate of the decedent included 630 shares of the outstanding stock of F. Korbel & Bros., Inc. (Korbel), a producer of champagne. The valuation expert witness for the respondent relied on two GPTCs:

1. Robert Mondavi Corp. (Mondavi)
2. Canandaigua Wine Co. (Canandaigua)

At the valuation date, Mondavi marketed premium wine, while Canandaigua offered a wider variety of products including table wines, dessert wines, sparkling wines, imported beer, and distilled spirits.

The sale of champagne peaks around holidays, demonstrating more seasonality than other alcoholic beverages.

The Tax Court noted that it had previously relied on as few as two GPTCs in its judicial decisions. However, the underlying differences between the GPTCs and Korbel, in conjunction with the selection of only two GPTCs, did not yield a credible value indication in this case.

In the *Estate of Louise Paxton Gallagher v. Commissioner*, the decedent owned 3,970 membership units in Paxton Media Group, LLC (PMG).<sup>9</sup>

As of the valuation date, PMG published 28 daily newspapers, 13 paid weekly publications, and owned and operated a television station.

The valuation expert for the respondent selected four GPTCs, three of which heavily integrated Internet news into their business models, while PMG did not offer any Internet news services.

Additionally, two of the selected GPTCs supplemented their newspapers with a wide variety of classified, specialty, shopper, and niche publications.

The Tax Court determined that the four GPTCs selected by the expert witness for the respondent were not sufficiently comparable to warrant application of the guideline publicly traded company method, citing differences in products as well as size and growth rates of revenue and EBITDA.

A recent court case from the Court of Chancery of Delaware, *In re ISN Software Corp.*,<sup>10</sup> illustrates the particular challenges of selecting GPTCs for the valuation of an atypical company.

ISN Software Corp. (ISN) provides a subscription-based online contractor database designed to help users meet governmental and internal record-keeping and compliance requirements.

The Court of Chancery disregarded the GPTC method considered by the valuation experts and,

instead, relied exclusively on the income approach and the discounted cash flow (DCF) method.

The Chancery Court noted, “In this case, where ISN has no public competitors, and where the Company’s alleged industry includes various and divergent software platforms, I find the GPC method less reliable than a DCF to determine ISN’s fair value.”<sup>11</sup>

## Consideration of Related Industries for the Valuation of Atypical Companies

For some companies, there may be very few GPTCs with sufficiently comparable operations. Given the absence of publicly traded companies with similar products and financial characteristics, an analyst may find the selection of GPTCs with a reasonable degree of comparability to an atypical company to be very difficult.

Analysts may be particularly challenged to find sufficiently comparable GPTCs in emerging industries and niche markets.

If the products of the subject company are in an emerging industry, competitors may have yet to develop a comparable product. Regarding niche markets, there may be a dearth of GPTCs offering a similar product. When GPTCs that offer a similar product are not available, the analyst may consider GPTCs from related industries.

When considering GPTCs from related industries, the analyst should consider the degree of comparability implied in Revenue Ruling 59-60, which states “the only restrictive requirement as to comparable corporations specified in the statute is that their lines of business be the same or similar” [emphasis added].<sup>12</sup>

As discussed in *Valuing a Business*, “this phrase [the same or similar] gives the analyst latitude to exercise reasonable judgment in selecting companies from related industries if unable to find guideline companies in the subject company’s industry group or companies with adequate trading volume.”<sup>13</sup>

If the analyst chooses to select GPTCs from a related industry, the analyst should consider the investment risk and return factors of both the GPTCs and the company being valued regarding the previous factors considered by the court. These factors include the following:

1. The markets in which the products are sold
2. The nature of competition
3. The book value and earnings of the GPTCs

An example of consideration of GPTCs from related industries in the GPTC method is in the val-

uation of E. & J. Gallo Winery (Gallo) in the *Estate of Mark Gallo*.<sup>14</sup>

Gallo was the largest producer of wine in the United States, and, as of the valuation date, there was only one publicly traded wine company stock. The valuation expert witnesses for the petitioner therefore expanded their GPTC selection to include distillers, brewers, soft drink bottlers, and food companies that were subject to seasonal crop conditions and competitive market conditions.

The selection of GPTCs from related industries was accepted by the Tax Court in the *Estate of Mark Gallo*. The Tax Court concluded that the “petitioner’s experts acted reasonably in selecting comparable companies.”

Both *Estate of Mark Gallo* and *Estate of Heck v. Commissioner* previously discussed involve the valuation of an alcoholic beverage producer, with GPTC selection from related industries.

There are two important differences that the Tax Court considered in rejecting the validity of the GPTCs in the *Estate of Heck v. Commissioner* and affirming the GPTC selection in the *Estate of Mark Gallo*.

First, in the *Estate of Heck v. Commissioner*, the GPTCs were selected from an industry with significant underlying differences (sale of champagne demonstrates much more seasonality than other alcoholic beverages).

Second, only two GPTCs were considered in the *Estate of Heck v. Commissioner*, while in the *Estate of Mark Gallo*, one of the petitioner’s expert witnesses relied on 10 GPTCs.

## The Quantity of the GPTCs

As shown in the contrasting outcomes of GPTC selection from related industries in the *Estate of Mark Gallo* and the *Estate of Heck v. Commissioner*, the quantity of GPTCs may have a significant effect on the reliability of the value indication based on the GPTC method.

In the valuation of atypical companies, analysts will likely be challenged to find a meaningful number of GPTCs and may question if the quantity of GPTCs is sufficient to arrive at a reasonable value indication.

The required quantity of GPTCs is generally inversely related to the degree of comparability of the GPTCs to the company being valued. That is, the more comparable the GPTCs are to the company being valued, the fewer GPTCs are required to arrive at a reasonable value conclusion.

This relationship was noted in the *Estate of Heck v. Commissioner*, in which the Tax Court stated, “as



similarity to the company to be valued decreases, the number of required comparables increases in order to minimize the risk that the results will be distorted by attributes unique to each of the guideline companies.”<sup>15</sup>

The analyst may find that relying on as few as two or three GPTCs with a high degree of comparability is sufficient for a reasonable value indication.

Alternatively, while valuing an atypical company, an analyst may find a group of GPTCs with a low but acceptable degree of comparability and one or a few GPTCs with a higher degree of comparability to the company being valued.

In such a case, it may be appropriate to tabulate the entire group of GPTCs to illustrate general market trends, but to assign a higher weighting to the more comparable GPTCs to favor more comparable pricing multiples.

## ABSENCE OF GPTCs WITH SUFFICIENT COMPARABILITY

If the analyst determines that there are no identified GPTCs with sufficient comparability to the subject company after consideration of the previously outlined economic factors that drive operations and profitability, the GPTC method may not be appropriate as a value indication.

If the analyst concludes that the GPTC method does not provide a meaningful value indication, it may be judicious for the analyst to document within the valuation report:

1. the procedures applied to identify potential GPTCs and
2. why the GPTC method was not relied on.

## WEIGHTING OF THE MARKET APPROACH GPTC METHOD

When selecting the weighting of the guideline publicly traded company method, the analyst should consider the quality of the data supporting this value indication.

If the GPTCs in the GPTC method have a low degree of comparability to the company being valued, then the analyst may consider applying more weight to value indications from other valuation approaches, if those value indications are more reasonable.

If the GPTCs selected do not lend a credible value conclusion due to a lack of comparability of the GPTCs to the company being valued, then the analyst may consider giving no weight to the GPTC method value indication. Alternatively, the analyst

may present this GPTC value indication solely as an indicator of reasonability.

## CONCLUSION

Analysts often value a wide variety of companies for gift and estate tax planning and compliance purposes, which may include atypical companies with unusual products or services that have very few direct competitors.

The analyst may encounter difficulty selecting GPTCs in the valuation of atypical companies when applying the GPTC method of the market approach valuation method. The analyst should judiciously select GPTCs that bear a reasonable level of comparability to the company being valued regarding the economic factors that drive operations and profitability. The analyst should also consider the permitted degree of comparability implied in Revenue Ruling 59-60 of “same or similar.”

### Notes:

1. Rev. Rul. 59-60, 1959-1 CB 237.
2. Daniel W. Bielinski, “The Comparable-Company Approach: Measuring the True Value of Privately Held Firms,” *Corporate Cashflow Magazine* (October 1990): 65–66.
3. Shannon P. Pratt, *Valuing a Business: The Analysis and Appraisal of Closely Held Companies*, 5th ed. (New York: McGraw-Hill, 2008), 270.
4. Frank M. Burke Jr., *Valuation and Valuation Planning for Closely Held Businesses* (Englewood Cliffs, NJ: Prentice-Hall, 1981), 49.
5. *Talichet v. Commissioner*, 33 T.C.M. 1133 (1974).
6. *Estate of Victor P. Clarke*, 35 T.C.M. 1482 (1976).
7. Pratt, *Valuing a Business*, 270.
8. *Estate of Heck v. Commissioner*, T.C. Memo 2002-34 (Feb. 5, 2002).
9. *Estate of Gallagher v. Commissioner*, T.C. Memo 2011-148 (June 28, 2011).
10. *In re ISN Software Corp.*, CA No. 8388-VCG, 2016 WL 4275388, at 4 (Del. Ch. Aug. 22, 2016).
11. *Ibid.*
12. Rev. Rul. 59-60, 1959-1 CB 237.
13. Pratt, *Valuing a Business*, 272.
14. *Estate of Mark S. Gallo*, 50 T.C.M. 470 (1985).
15. *Estate of Heck v. Commissioner* at 9.

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# Valuing the Interests of a NIMCRUT for Gift and Transfer Tax Purposes

Thomas P. Regan

*High net worth individuals seeking a tax-advantaged trust structure to assist in charitable gift and estate tax planning may use a net income with makeup charitable remainder unitrust (NIMCRUT). The NIMCRUT structure may appeal especially to (1) individuals who have assets with significant embedded capital gains, (2) individuals who intend to donate a substantial sum of money to charity upon their death or at another time in the future, and (3) individuals who desire an income stream for themselves or their loved ones for life or for a specifically defined future period. When performing the valuation of an interest in a NIMCRUT, an analyst should follow specific procedures determined by the Internal Revenue Service. However, a better understanding of NIMCRUT-specific factors and how they affect valuation will assist the analyst in performing these procedures efficiently and accurately. This discussion provides analysts with (1) a basic understanding of what a NIMCRUT is (to assist them in their NIMCRUT-related valuation analysis) and (2) a step-by-step process for the accurate valuation of interests in a NIMCRUT in accordance with the Treasury regulations.*

## INTRODUCTION

A net income with makeup charitable remainder unitrust (NIMCRUT) is a unique structure typically used in charitable gifting and estate planning.

An analyst may be engaged to value different interests in a NIMCRUT for a variety of purposes that may be (1) required by the Internal Revenue Service (“the Service”) or (2) requested by the client for planning and compliance purposes.

Although various programs exist to calculate the value of interests in a NIMCRUT, it is beneficial for an analyst to understand the process behind the calculation when performing NIMCRUT-related valuation services.

The focus of this discussion is to provide a background understanding of a NIMCRUT which includes, among other things, the following:

- The basic requirements of the NIMCRUT structure
- Key advantages and disadvantages faced by holders of interests in a NIMCRUT

- Key transactions that require the valuation of interests in a NIMCRUT
- Specific procedures for correctly estimating the value of these interests

The background understanding outlined in this discussion may assist valuation analysts engaged to estimate the value of interests in a NIMCRUT. This background provides analysts with the tools to:

1. develop a well-organized valuation analysis,
2. effectively inquire of clients and their legal counsel regarding the key factors impacting the value of each interest in a NIMCRUT, and
3. perform procedures to ensure an accurate and efficient valuation of each interest.

Ultimately, analysts may use the information in this discussion to help them correctly calculate the value estimate of each interest in a NIMCRUT, logically present their calculation in straight-forward

valuation exhibits, and effectively explain their procedures and reasoning in the valuation report.

This discussion is also intended to assist attorneys in understanding the procedures a valuation analyst may undertake in estimating the fair market value of an interest in a NIMCRUT.

The well-reasoned valuation of an interest in a NIMCRUT results in a value estimate that allows the owner of the interest to benefit from all of the tax advantages provided by the NIMCRUT and ensures compliance with the applicable Internal Revenue Code sections and Treasury regulations.

## KEY ASPECTS OF A NIMCRUT

A NIMCRUT is an irrevocable trust to which an individual (i.e., donor) contributes property or other assets and designates at least one noncharitable unitrust income beneficiary (which may be the donor or another person) and a charitable remainder beneficiary (which is required to be a qualifying charity as defined in Section 170[c]).<sup>1</sup>

The unitrust income beneficiaries receive an income stream from the NIMCRUT for life or a period of up to 20 years, as defined in the trust agreement or other applicable governing documents of each NIMCRUT.

At the conclusion of the unitrust income beneficiary period (whether by the death of the last surviving noncharitable beneficiary or the conclusion of the specified term), the assets of the NIMCRUT are transferred to the designated charity or charities.

Overall, a properly organized and managed NIMCRUT may appeal to donors based on, but not limited to, the following key benefits:<sup>2</sup>

1. A NIMCRUT may provide the donor (or another income beneficiary of their choice) with a substantial income stream for life or a selected period of time immediately subsequent to making a donation.
2. The contribution of property or other assets into a NIMCRUT allows the donor to take a charitable deduction in the year the assets are contributed to the NIMCRUT.
3. A trustee (either the donor or an appointee of the donor) controls the assets within the NIMCRUT for the entity's duration and may defer income from the NIMCRUT based on their selection of investments.
4. Placing property or other assets into a NIMCRUT removes the assets from the donor's taxable estate.

5. Earnings from capital gains, dividends, interest, and other investment returns are tax exempt within a NIMCRUT.<sup>3</sup>
6. Appreciated assets contributed to a NIMCRUT may be sold without being subject to capital gains taxes.
7. After the creation of the NIMCRUT, no future contributions are required but unlimited contributions are permitted.

In order to obtain the benefits above, the NIMCRUT is required by the Service to abide by specific restrictions which are discussed in the requirements for a NIMCRUT classification section below.

A donor's decision for whether to utilize a NIMCRUT as part of his or her gift, estate, or tax planning is outside of the scope of this discussion; however, understanding key advantages and requirements of a NIMCRUT may assist analysts in their valuation.

## REQUIREMENTS FOR NIMCRUT CLASSIFICATION

For an analyst to undertake proper valuation procedures with regards to a NIMCRUT, it may be beneficial to understand the Service's requirements for a trust to be classified as a NIMCRUT.

To obtain and maintain the NIMCRUT designation and related tax status, contributions to a unitrust are irrevocable, the present value of the remainder interest is required to equal at least 10 percent of the total value of the NIMCRUT,<sup>4</sup> and the unitrust is obliged to fulfill all the requirements of a charitable remainder unitrust (CRUT) as defined in Section 664(d)(2) and discussed below.

Over a time-period specified in the NIMCRUT trust agreement or other governing documents, the NIMCRUT is required to pay each income beneficiary a unitrust income payment on an annual or more frequent basis.

The amount paid to each income beneficiary is equal to the lesser of a specified fixed percentage (between 5 and 50 percent) of the net fair market value of the annually valued assets of the NIMCRUT, and the income of the NIMCRUT.<sup>5</sup>

The specified fixed percentage payment contrasts with annuity trusts, which pay out a specified dollar amount to income beneficiaries.

The specified time period of the unitrust income payments made by a NIMCRUT may either be:

1. for the life or lives of the donor(s) or another living individual of the donor's choice or
2. for a specific term that does not exceed 20 years.<sup>6</sup>

In contrast to a traditional CRUT, a NIMCRUT allows for each income beneficiary to “makeup” for years when the net income of the NIMCRUT is less than the amount calculated using the specified fixed percentage by collecting the difference in future years when net income is greater than the amount calculated using the specified fixed percentage.<sup>7</sup>

This makeup provision provides NIMCRUT trustees more control over the timing of payments to beneficiaries based on the ability of the NIMCRUT assets to produce income in the current year.

The makeup provision does not affect the analyst's valuation of the NIMCRUT for income, gift, and estate tax purposes. This is because the analyst is required by the Service to rely on the specified fixed payment percentage when estimating the fair market value of interests in a CRUT or NIMCRUT—regardless of whether the makeup provision exists.<sup>8</sup>

After the completion of the required income payments, the remainder interest in a NIMCRUT is to be transferred to, or for the use of, or held by the unitrust for the use of, a qualifying charity as defined in Section 170(c).

One notable exception to this requirement exists if the remainder interest is composed of qualified employer securities as defined in IRC Section 664(g)(4). In this case, all or a portion of these securities are to be transferred to an employee stock ownership plan in a qualified gratuitous transfer.<sup>9</sup>

This charitable requirement separates NIMCRUTs from noncharitable trusts and provides a basis for the allowance of charitable gift deductions by the Service for the contribution of assets to the NIMCRUT.

To retain its classification, a NIMCRUT may not make any payments other than the required payment to income beneficiaries and qualified gratuitous transfers, as discussed above, to or for the use of any person other than a qualifying charity as defined in Section 170(c).<sup>10</sup>

Failure to fulfill each of the requirements above may result in a trust failing to qualify as a charitable remainder trust (CRT), which includes NIMCRUTs and CRUTs under Section 664.

This may result in the donor being disallowed from taking a charitable, gift, or estate tax deduction on assets contributed to the trust. It may also result

in the loss of the trust's tax-exempt status for its own tax purposes.<sup>11</sup>

The NIMCRUT valuation procedures below assume that the subject trust is a qualified NIMCRUT as of the date of the analyst's valuation.

Due to the extended list of NIMCRUT requirements, it is recommended that the analyst confirm with the clients and/or their legal counsel that the subject trust is a NIMCRUT before performing the following valuation procedures.

## NIMCRUT VALUATION PROCEDURES

As discussed previously, a NIMCRUT is composed of one or more remainder interests and unitrust income interests.

An analyst will primarily be engaged to estimate the value of a remainder interest in a NIMCRUT at any time when assets are contributed to the NIMCRUT. Unless otherwise specified in the NIMCRUT trust agreement or other governing documents, contributions may be made at the creation of the NIMCRUT and/or at any other time in the future of the NIMCRUT.

Each contribution requires the valuation of the related remainder interest as of the contribution date in order to deduct the estimated value of the remainder interest as a charitable deduction on the donor's personal income tax return.

This value estimate may be deducted on the donor's income tax return in the year of contribution and may be carried forward by the donor for up to five years.<sup>12</sup>

Although the donor may amend the charitable beneficiary of the remainder interest at a subsequent date (unless otherwise specified in the governing documents), this amendment does not allow the donor to take a subsequent deduction for the remainder interest, and thus does not require a value estimate of the remainder interest for the donor's income tax purposes.

An analyst may estimate the value of a unitrust income interest in a NIMCRUT for a variety of

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**“Each contribution requires the valuation of the related remainder interest as of the contribution date in order to deduct the estimated value of the remainder interest as a charitable deduction on the donor's personal income tax return.”**

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charitable, gift, or estate tax purposes, both at the date of contribution (such as the immediate designation by the donor of a family member or friend as the beneficiary of the interest), and at subsequent dates (such as the subsequent gifting of the interest or the passing of the interest to another individual upon the death of a beneficiary).

To estimate the value of both the total unitrust income interest and the total remainder interest of a NIMCRUT, an analyst may follow the required procedures outlined in Regulation 1.664-4, which apply to the valuation of NIMCRUTs and CRUTs and which detail the procedures to calculate the total present value of the remainder interest.

The present value of the total unitrust income interest may then be estimated based on the present value of the remainder interest.

To estimate the value of the remainder or unitrust income interest the analyst may perform the following procedures:

1. Estimate the net fair market value of the assets held by or contributed to the NIMCRUT.
2. Obtain the relevant present value factor for the remainder interest based on the specific facts of the case.
3. Calculate the present value of the remainder interest.
4. Calculate the present value of the unitrust income interest (if necessary).

To facilitate the discussion and provide better clarity of each step in the valuation procedures, examples are provided below for each step based on the following hypothetical NIMCRUT valuation engagement.

## Illustrative Example

Let's assume that Steve engaged Willamette Management Associates to estimate the total fair market value of the remainder interest in NIMCRUT 1 that Steve and his wife, Katie, may record as a charitable deduction on their joint 2014 tax return.

The following list represents the relevant facts of the case.

- On June 30, 2014, Steve signed the NIMCRUT 1 trust agreement, which officially created NIMCRUT 1 and required the transfer of \$1 million in marketable securities from Steve to NIMCRUT 1 on the same date.
- Steve designated Charity X as the remainder beneficiary of 100 percent of the assets of NIMCRUT 1.

- Steve designated himself and his wife, Katie, as the sole income beneficiaries of a last-to-die interest in NIMCRUT 1.

This interest will pay Steve the lesser of 5 percent of the net fair market value of the assets of NIMCRUT 1 or the net income of NIMCRUT 1 on a quarterly basis until he dies, and will then pay Katie under the same terms until she dies, if she outlives him.

- At the time of the contribution, Steve is 79 years old and Katie is 75 years old.
- The assets of NIMCRUT 1 are valued annually as of December 31 each year.
- Required quarterly unitrust income payments are distributed to income beneficiaries on the last day of January, April, July, and October, each year.

The example procedures are specific to the facts presented. Analysts should use professional judgment when referring to this example in their own subsequent NIMCRUT valuations.

### Step 1: Estimate the Net Fair Market Value of the Assets Held by or Contributed to the NIMCRUT

To estimate the net fair market value of the assets contributed to the NIMCRUT, the analyst may apply one or more of the three generally accepted business valuation approaches (the market approach, the income approach, and the asset-based/cost approach) to estimate fair market value, which would be determined based on the types of assets contributed to the NIMCRUT.

An asset-based approach will most often be the most relevant business valuation approach to apply in this situation.

This is because the assets contributed to the NIMCRUT will commonly consist of marketable securities, real estate property, and other investments for which the fair market value of the assets may be obtained and for which the sum of the fair market values of the assets is the best indication of the net fair market value of the total assets.

However, the analyst should use his or her judgment in determining which of the generally accepted business valuation approaches to use in estimating the net fair market value of assets based on each specific case.

The procedures for completing each of these valuation approaches is outside of the scope of this discussion.

## Example Step 1 Procedures

Because Steve's contribution is composed solely of marketable securities for which there is a readily available fair market value indication provided by an organized exchange (and such holdings are readily marketable and clearable at such price), we rely upon an asset-based approach adjusted net asset value method to estimate the net fair market value of the assets contributed to NIMCRUT 1.

This valuation method results in a net fair market value of NIMCRUT 1 equal to \$1 million as of the June 30, 2014, valuation date.

Had the assets been more appropriately estimated by market approach, income approach, or other asset-based/cost approach methods (or a synthesis of all of the above), such a synthesis would be applied at this step of the analysis.

## Step 2: Obtain the Relevant Present Value Factor

### Step 2a: Calculate the Adjusted Payout Rate

The first step to obtain the relevant present value factor for the remainder interest is to calculate the adjusted payout rate for the NIMCRUT based on the specific facts of the case.

The adjusted payout rate is calculated by multiplying the specified fixed percentage unitrust income payout of the NIMCRUT by the relevant adjustment factor listed in Table F of Internal Revenue Service Publication 1458 (reproduced in this discussion). The adjustment factor is obtained based on:

1. the Section 7520 interest rate during the month of transfer,
2. the frequency of the unitrust income payments made by the NIMCRUT (monthly, quarterly, semiannually, or annually), and
3. the number of months that the valuation date for the first full taxable year of the NIMCRUT precedes the first payout date of the NIMCRUT for the same taxable year.<sup>13</sup>

It is important to note that the valuation date for the first full taxable year of the NIMCRUT is the

**Internal Revenue Service Publication 1458  
Table F(2.2)  
Factors for Computing Adjusted Payout Rates for Unitrusts  
Interest at 2.2 Percent**

# of Months from Annual Valuation to First Payout		Adjustment Factors for Payments at End of Period			
At Least	But Less Than	Annual	Semiannual	Quarterly	Monthly
--	1	1.000000	.994589	.991891	.990095
1	2	.998188	.992787	.990094	.988301
2	3	.996380	.990988	.988300	
3	4	.994574	.989193	.986509	
4	5	.992772	.987401		
5	6	.990974	.985612		
6	7	.989178	.983826		
7	8	.987386			
8	9	.985597			
9	10	.983811			
10	11	.982029			
11	12	.980250			
12	--	.978474			

date on which the assets of the NIMCRUT are valued each year, as presented in the NIMCRUT governing documents. This valuation date is not related to the date an analyst performs a valuation of any interest in the NIMCRUT.

### Step 2a Example

To determine the adjusted payout rate for NIMCRUT 1, we first obtain the June 2014 Section 7520 interest rate of 2.2 percent from the [www.irs.gov](http://www.irs.gov) website.

The Section 7520 interest rate applies to the valuation of certain charitable interests in trusts and is calculated by the Service each month based on 120 percent of the annually compounded applicable federal midterm rate for that month.<sup>14</sup>

We then identify the relevant adjustment factor from Publication 1458 Table F based on (1) a 2.2 percent Section 7520 interest rate, (2) quarterly payments made by NIMCRUT 1, and (3) a first payout date (January 31), which is one month after the annual valuation date of NIMCRUT 1 (December 31).

As identified in the relevant portion of Internal Revenue Service Publication 1458 Table F, these procedures result in an adjusted payout rate adjustment of 0.990094.

We then multiply the adjusted payout rate adjustment of 0.990094 by the 5.00 percent fixed rate of NIMCRUT 1 to obtain an adjusted payout rate of approximately 4.95 percent.



**IRS Publication 1458**  
**Table U(2)**

Ages		Adjusted Payout Rate					
O	Y	4.2%	4.4%	4.6%	4.8%	5.0%	5.2%
79	60	.41115	.39515	.37985	.36524	.35127	.33792
79	61	.42232	.40633	.39103	.37640	.36239	.34898
79	62	.43352	.41756	.40227	.38762	.37359	.36014
79	63	.44474	.42882	.41355	.39890	.38485	.37137
79	64	.45595	.44008	.42485	.41022	.39616	.38266
79	65	.46715	.45135	.43616	.42156	.40751	.39400
79	66	.47838	.46266	.44754	.43297	.41895	.40544
79	67	.48959	.47397	.45892	.44441	.43042	.41694
79	68	.50073	.48522	.47026	.45582	.44188	.42843
79	69	.51177	.49638	.48152	.46716	.45328	.43987
79	70	.52266	.50740	.49265	.47838	.46458	.45123
79	71	.53338	.51826	.50363	.48946	.47575	.46247
79	72	.54390	.52893	.51443	.50037	.48675	.47355
79	73	.55417	.53936	.52499	.51106	.49754	.48443
79	74	.56414	.54949	.53528	.52147	.50807	.49505
79	75	.57378	.55930	.54523	.53157	.51828	.50537
79	76	.58306	.56876	.55484	.54131	.52816	.51536
79	77	.59197	.57784	.56409	.55070	.53767	.52499
79	78	.60050	.58654	.57295	.55971	.54681	.53425
79	79	.60863	.59484	.58141	.56832	.55556	.54312

**Step 2b: Obtain the Relevant Present Value Factor**

After calculating the adjusted payout rate, the analyst may then use the adjusted payout rate to obtain the present value factor relevant to calculating the value of the remainder interest from one of the actuarial tables within Publication 1458.

The analyst first selects the relevant actuarial table based on the type of interest held by the unitrust income beneficiary.

Table U(1) is relevant when there is one unitrust income beneficiary who holds a life interest in the income from the NIMCRUT.

Table U(2) is relevant when there are two unitrust income beneficiaries who together hold a last-to-die interest in the NIMCRUT.

Table D is relevant when there is one or more unitrust income beneficiaries who hold specific-term interests that do not exceed 20 years.

The relevant present value is then obtained from the appropriate Publication 1458 table based on:

1. the adjusted payout rate calculated above,
2. the age of the beneficiary or beneficiaries who hold life or last-to-die unitrust income interests in the NIMCRUT, or

3. the number of years remaining until the completion of specified-term unitrust income interests.

Within the Publication 1458 tables discussed above, the Service provides present value factors for adjusted payout rates separated by every 0.2 percent from 0.2 percent to 20.0 percent. Oftentimes, the adjusted payout rate will not fall exactly on a listed payout rate.

In this case, the analyst interpolates between the present value factors listed for the payout rates that are closest to the adjusted payout rate based on the proportionate difference between the adjusted payout rate and the closest listed payout rates.

**Step 2b Example**

Because Steve and Katie together hold a last-to-die unitrust income interest in NIMCRUT 1, we apply Table U(2) to obtain the closest relevant present value factors for a 79- and 75-year-old who hold a last-to-die unitrust income interest in a NIMCRUT with a 4.95 percent adjusted payout rate.

As shown in the relevant portion of Table U(2), the interpretation of the chart results in present value factors of 0.53157 for a 4.8 percent adjusted payout rate and 0.51828 for a 5.0 percent adjusted payout rate.

These are the closest relevant present value factors to the 4.95 percent adjusted payout rate of the NIMCRUT 1 remainder interest.

Because the adjusted payout rate of 4.95 percent falls in between the present value factors listed in Table U(2), we interpolate between the two numbers.

In this instance, we use the following calculation:

$$PV_{4.95} = PV_{4.80} - (PV_{4.80} - PV_{5.00}) \times \left( \frac{4.95 - 4.80}{5.00 - 4.80} \right)$$

where:

PV = Present value factor related to each rate

Based on this calculation, we obtain a present value factor of approximately 0.5216 for the NIMCRUT 1 remainder interest.

**Step 3: Calculate the Present Value of the Remainder Interest**

The calculation of the present value of the remainder interest simply requires multiplying the net fair market value of the NIMCRUT assets obtained in step one by the present value factor obtained in step two.

### Step 3 Example

Based on our \$1 million estimate of the net fair market value of the assets contributed to and held by NIMCRUT 1 and our calculated present value factor for the NIMCRUT 1 remainder interest of 0.5216, we estimate the value of the remainder interest in NIMCRUT 1 to be approximately \$521,600 as of June 30, 2014.

Based on our procedures, Steve and Katie may deduct \$521,600 as a charitable deduction on their joint 2014 tax return.

### Step 4: Calculate the Present Value of the Unitrust Income Interest (if necessary)

As the total value of the net assets of the NIMCRUT is composed of the total remainder interest and the total unitrust income interests, the analyst may apply the present value of the total remainder interest to calculate the present value of the total unitrust income interests by subtracting the present value of the total remainder interest from the total net fair market value of the assets held by or contributed to the NIMCRUT as of the analyst's valuation date.

### Step 4 Example

In this instance, the value of the unitrust income interest is not required for gift or estate tax purposes because Steve and Katie are maintaining control of this interest as of the analyst's valuation date.

If Steve and Katie instead decided to gift all or a portion of the interest to another individual or organization, the value may be estimated for gift or income tax purposes.

To calculate the present value of the total unitrust income interest in this case, the \$521,600 remainder interest is subtracted from the \$1 million total present value of NIMCRUT 1. This calculation results in a total unitrust income interest for both Steve and Katie of \$478,400.

The \$478,400 total unitrust income interest value is then multiplied by the percentage of the interest being gifted by Steve and Katie to estimate the present value of the gift.

## SUMMARY AND CONCLUSION

An analyst may be asked to value remainder interests and unitrust income interests in a NIMCRUT for a variety of gift, estate, and other transfer tax related purposes.

In each instance, the unique factors and valuation analysis applied to NIMCRUTs may pose

difficulty to analysts who are unfamiliar with the NIMCRUT structure and NIMCRUT valuation procedures.

The discussion summarized the key items that make NIMCRUTs unique in order to familiarize analysts with specific factors they may consider in their valuation analysis of interests in a NIMCRUT.

The discussion also provided step-by-step procedures an analyst may take in performing his or her valuation analysis, and it presented a theoretical example to explain each step.

Analysts may use this discussion to assist them in future valuation engagements regarding the valuation of interests within a NIMCRUT. However, the analysts should use their own professional judgment to perform valuation procedures based on the specific facts of their case.

#### Notes:

1. Nathan R. Brown, "A Primer on Charitable Remainder Trusts," *Tax Management Estates, Gifts, and Trusts Journal* (November 13, 2014).
2. *Ibid.*
3. David Wheeler Newman, "Advanced NIMCRUT Design" (May 18, 2011), from [www.pgdc.com/pgdc/advanced-nimcrut-design](http://www.pgdc.com/pgdc/advanced-nimcrut-design).
4. §664(d)(2)(D). More information on this topic can be found in the decision of *Estate of Arthur E. Schaefer v. Commissioner*.
5. §664(d)(2)(A).
6. *Ibid.*
7. "Charitable Remainder Trust—Net Income with Makeup Charitable Remainder Unitrusts (NIMCRUTs)," Royal Bank of Canada, 2016.
8. §664(e).
9. §664(d)(2)(C).
10. §664(d)(2)(B).
11. Richard L. Fox, "Tax Court Issues Opinion on Valuing Remainder Interest in NIMCRUT for Purposes of 10% Remainder Interest Requirement" (September 9, 2015), from [www.pgdc.com/pgdc/tax-court-issues-opinion-valuing-remainder-interest-nimcrut-purposes-10-remainder-interest-regu](http://www.pgdc.com/pgdc/tax-court-issues-opinion-valuing-remainder-interest-nimcrut-purposes-10-remainder-interest-regu).
12. §170(b)(1)(B).
13. Regulation 1.664-4(e)(3).
14. "Section 7520 Interest Rates," [www.irs.gov](http://www.irs.gov).

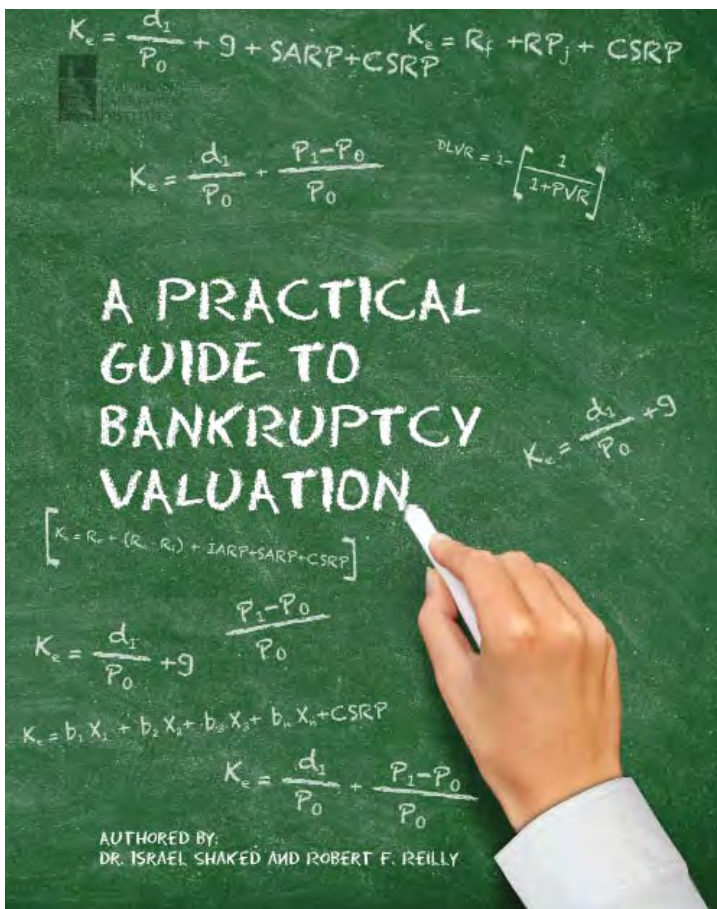
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# A PRACTICAL GUIDE TO BANKRUPTCY VALUATION

Dr. Israel Shaked and Robert F. Reilly

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Glossary



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# Analyst Considerations of a Taxable Stock Purchase M&A Structure

Robert F. Reilly, CPA

*Valuation analysts (analysts) may serve as financial advisers to the parties of merger and acquisition (M&A) transactions. And, analysts may be asked to opine on the fairness of the M&A transaction price and/or structure. Such analysts are not necessarily income tax experts. However, analysts should consider the taxation aspects of the transaction structure in their financial advice or transaction fairness opinions.*

## INTRODUCTION

Valuation analysts (analysts) are often called on to:

1. value merger and acquisition (M&A) candidates and
2. opine on the price and structure of M&A transactions.

In such engagements, analysts often serve as pre-deal financial advisers to one or more sets of transaction participants.

And, such analysts are often called on to issue transactional fairness opinions to their clients. These opinions often encompass the relative and/or absolute fairness of the deal price and the deal structure.

In addition, analysts are often asked to analyze completed M&A transactions after the fact. These engagements often involve forensic analysis related to dissenting shareholder appraisal rights actions.

Related to such tort litigation claims, analysts are often asked to opine on both the fairness of the deal price and the fairness of the deal structure to the dissenting noncontrolling shareholders.

Analysts do not need to be either investment bankers or income tax experts to perform such transaction fairness analyses. However, analysts do need to understand alternative M&A transaction structures and the impact of transactional structuring on the target company value.

Most acquisitions of larger companies are structured as nontaxable stock acquisitions. Stock acquisitions usually involve the acquirer taking a carry-over tax basis in the acquired company assets. This statement is true even if the acquirer paid a substantial price premium for the target company stock.

It is possible to structure a stock acquisition as a taxable stock purchase transaction. However, there are numerous tax complexities related to this taxable stock acquisition deal structure. This discussion summarizes some of the tax benefits—and some of the tax complexities—associated with a taxable stock purchase deal structure.

Although the analyst is not expected to be the transaction income tax adviser, the analyst opining on the deal price fairness to any of the deal participants should be generally aware of these transaction structure considerations.

## TRANSACTION STRUCTURE CONSIDERATIONS ON TARGET COMPANY VALUE

It is unusual for the transaction participants to structure a target company stock acquisition (versus an asset acquisition) as a taxable acquisition.

Of course, in the taxable acquisition of the target company assets, the corporate acquirer enjoys the expected future income tax benefit associated with the step-up in the depreciable basis of the acquired



assets. The depreciable basis of the acquired assets will equal the purchase price that the corporate acquirer paid for the total bundle of assets.

In contrast, in the nontaxable acquisition of the target company stock, the corporate acquirer receives a carryover tax basis of the acquired assets. That is, typically, the acquirer continues to depreciate the seller's tax basis in the target company assets—regardless of the amount of the purchase price premium that the corporate acquirer paid for the target stock.

In the typical company stock acquisition transaction, the corporate acquirer will assume all of the known (including both recorded and contingent) liabilities of the acquired company.

In addition, in the stock acquisition, the corporate acquirer will assume all of the unknown liabilities of the acquired company. These unknown liabilities would include any liabilities related to pre-acquisition date events for which no claim was made against the target company as of the acquisition date.

However, after assuming the “cost” of both these known and unknown liabilities related to the stock acquisition, the corporate stock acquirer would not receive the benefit of the step-up in the depreciable basis of the target company assets for federal income tax purposes.

Accordingly, the acquirer incurs the “cost” of the assumed liabilities in the target company purchase price. But, because the transaction is nontaxable, the acquirer does not receive the benefit of increased depreciation expense related to the revalued target company assets.

Therefore, without the tax benefit of the step-up in the depreciable basis of the acquired assets, why would the acquirer structure the stock acquisition as a taxable transaction?

## STOCK ACQUISITION TREATED AS AN ASSET ACQUISITION

Some years ago, there was a trend away from acquisitions structured as asset purchase transactions to acquisitions structured as stock purchase transactions. Many years ago, these stock transactions were often treated as asset purchases for federal income tax purposes.

Pursuant to an election under Internal Revenue Code Section 338(h)(10), a corporate acquirer—in conjunction with the stock seller—may elect to treat the purchase of the target company stock as an asset acquisition.

In such a transaction, the gain on the deemed asset sale is reported on the target company's con-



solidated income tax return (or reported by the shareholders of an S corporation). Section 336(e) allows for the similar income tax treatment if the corporate acquirer is not itself a corporation.

Such tax elections allow for the corporate acquirer to treat a target company stock acquisition as a target company asset purchase for federal income tax purposes. Accordingly, with such an election, the tax “benefit” of a step-up in the depreciable tax basis of the target company assets (up to the acquisition price) is achieved by the corporate acquirer.

## REPS AND WARRANTIES PROTECTION

One reason for this trend away from asset acquisition structures is that the typical corporate acquirer legal counsel is now more comfortable in drafting contractual representations and warranties to cover any adverse effect related to the acquirer assuming unknown liabilities.

Another reason for this trend in deal structures is the common availability of “reps and warranties” insurance related to most merger and acquisition transactions.

In addition to the availability of reps and warranties protection, a stock acquisition structure simplifies the transfer of the target company's business agreements, contracts, licenses, and so forth, to the corporate acquirer.

This intangible asset transfer result is achieved because a stock acquisition structure does not

create a legal change in the ownership of these underlying contracts and rights.

## TAXABLE ACQUISITION OF THE TARGET COMPANY STOCK

However, in certain circumstances, acquisitive transactions may be structured as a taxable acquisition of target company stock without an election being made under either Section 338(h)(10) or Section 336(e). In these instances, the corporate acquirer may be a private equity firm that wants to avail itself of Section 1045 rollover treatment.

Or, the acquirer may be a not-for-profit institution that is not concerned with the potential double tax related to the taxable transaction structure.

Alternatively, the target company may have depreciated assets or other tax attributes that the corporate acquirer wishes to preserve. Or, the corporate acquirer simply cannot qualify for the election under Section 338 because the target company is a stand-alone C corporation.

Also, the target company seller may want to avail itself of the gain exclusion provisions under Section 202, or the target company seller may want to have the opportunity to accomplish a Section 1045 rollover.

Whatever the reasons are for this current trend in acquisition deal structuring, the result includes tax complexities that many transaction participants may not be familiar with. Further complicating this transaction structuring decision is the application of Financial Accounting Standards Board (FASB) Accounting Standards Codification (ASC) topic 820, Fair Value Measurement, for U.S. GAAP purposes.

Regardless of the deal tax structure, ASC topic 820 requires that the target company acquisition be accounted for on a fair value (and not a historical cost) accounting basis.

Therefore, the target company opening GAAP balance sheet will be presented on a fair value (equal to acquisition purchase price) basis, even if the tax balance sheet is still presented on a carry-over tax basis.

## ILLUSTRATIVE EXAMPLE OF THE TAX COMPLEXITIES

To illustrate certain transaction structure tax complexities, let's assume that an LLC (taxed as a partnership) acquires all of the stock of a C corporation target company. Let's assume that the LLC investors make contributions to the capital of the LLC.

In turn, the LLC obtains the acquisition purchase price financing from a commercial bank. The C corporation target company is treated as the co-borrower on the acquisition financing debt.

The acquirer LLC uses the debt and equity to finance the acquisition of the C corporation target company stock. For income tax purposes, the final transaction structure is an LLC with an investment in the C corporation stock, debt, and equity.

The acquired C corporation company is an operating business that generates cash flow from its operations. The tax problem becomes: how does the acquirer LLC receive from the C corporation the amount of cash needed to amortize the acquisition indebtedness?

If the acquired C corporation distributes some of its cash flow to the LLC, then the likely tax treatment will be a taxable dividend to the LLC parent. In addition, the acquisition debt interest expense treatment will likely be that the interest expense is an investment interest expense.

Accordingly, the LLC owners:

1. would have to recognize dividend income and
2. may be limited with respect to the tax deduction of the acquisition debt interest under the Section 163 investment interest expense rules.

An additional tax complexity is that the situation may not be readily identified until it is time to start completing the acquirer's income tax returns.

This is because, for GAAP financial accounting purposes, the parent LLC and its operating C corporation subsidiary will be considered as one reporting group—with the target company assets being reported on the consolidated (or combined) balance sheet at fair value at the time of acquisition.

## THE ALTERNATIVE TAX STRUCTURE

A more taxpayer-favorable result may be achieved if the acquirer LLC makes a check-the-box election to be taxed as a C corporation. Then, the acquirer LLC will further elect to file a consolidated income tax return with its acquired C corporation subsidiary. With this tax structure, the limitation of the deductions for the interest expense is avoided. However, the tax flow-through nature of the LLC structure would be given up.

Another tax structure alternative could be to create a management fee agreement between (1) the acquired operating C corporation and (2) the acquirer LLC.

Pursuant to this management agreement, enough cash flow would result from the management fee for the LLC to amortize the stock acquisition debt. However, the transaction parties should be careful not to change the economics of the deal by adding this target company management fee expense after the fact.

## OTHER STRUCTURING CONSIDERATIONS

A further tax complexity is that, for income tax purposes in a stock purchase transaction, the C corporation assets will carry over with respect to both depreciable basis and depreciation methods. However, for GAAP financial accounting purposes, the acquired C corporation's opening balance sheet will be presented on a fair value accounting (i.e., stepped-up basis).

The corporate acquirer should be careful to ensure that both:

1. the target company historical tax depreciation schedules are maintained and
2. the acquisition accounting entries for the GAAP accounting can be unwound.

This post-transaction recordkeeping consideration is in addition to the acquirer performing a Section 384 analysis if the target company has a net operating loss or a tax credit carryforward.

The purchase of C corporation stock by an S corporation may create an additional trap for the transaction participants. This transaction structure will create the tax complexities outlined in the above LLC acquisition illustrative example. However, there will be one additional potentially negative tax consequence.

To illustrate, let's assume that an S corporation purchases the C target corporation stock for \$10 million and the underlying depreciable basis of that target company's assets is \$4 million.

Similar to the tax result described above, if the S corporation acquirer borrows the funds to finance the acquisition purchase price, then the interest expense will be treated as investment interest expense—if it is traced to the acquisition of the target C corporation stock. Even if the interest is tax deductible to the S corporation shareholder for federal income tax purposes, it may not be deductible for state income tax purposes.

This tax situation may encourage the transaction participants to make a QSub election under Section 1361 for the acquired C target corporation.

However, after carefully examining the consequences of a QSub election, the transaction participants may conclude that the election creates a deemed liquidation of the target company under Section 332. In a deemed liquidation of the target company into the parent corporation under Section 332, the parent takes a carryover depreciable tax basis in the target company assets as its stock basis.

Accordingly, in this particular example, the parent corporation would lose \$6 million in stock tax basis when a QSub election is made.

## SUMMARY AND CONCLUSION

A taxable stock acquisition transaction is a potentially attractive M&A structure in order for the target company seller to pay one level of tax on the company sale—and to potentially pay no tax if Section 202 applies.

For corporate acquirers, the taxable stock acquisition structure will likely result in the easy transfer of all of the target company (1) business contracts and agreements and (2) registrations and licenses.

However, the transaction participants need effective income tax planning in order to avoid the potential negative tax consequences and complexities of a taxable stock purchase.

Valuation analysts are often called on to assess and opine on the fairness of the price and of the structure related to an M&A transaction. Such analysts may advise one or more transaction participants in a pending deal.

Or, such analysts may be engaged as valuation testifying experts in dissenting shareholder appraisal rights claims. In such engagements, the analyst also opines on the fairness of the deal price and structure—in this case, to the dissenting noncontrolling equity holders.

There are benefits and complexities associated with the taxable stock purchase transaction structure. Such issues should be considered in the fairness analysis of the M&A transaction price and structure.

Although not necessarily expected to be an income tax expert, the analyst advising any of the deal participants should be generally aware of these transaction structure considerations.

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# Bankruptcy Valuation Analyst Guidelines

Robert F. Reilly, CPA

*Valuation analysts (analysts), forensic accountants, financial advisers, and related professionals are often called on to provide valuation and other financial opinions within a commercial bankruptcy context. These opinions often involve analyzing when a debtor company enters the zone of insolvency, assessing the debtor company solvency or insolvency, determining the value of a creditor's security interest, concluding the fairness of a proposed sale or financing transaction while the debtor is in bankruptcy protection, determining whether a proposed plan of reorganization is fair and equitable, or providing the fresh-start accounting asset and liability values for a reorganized debtor company that is exiting bankruptcy protection.*

## INTRODUCTION

Valuation analysts (analysts) and related financial professionals are often called on to value a debtor company business, business ownership interest, securities, or intangible assets within a commercial bankruptcy context. These valuations and transactional opinions are prepared for a number of bankruptcy-related purposes.

This discussion summarizes many of the topical issues facing the experienced analyst who practices in the bankruptcy discipline. This discussion suggests practical guidance for analysts who provide bankruptcy-related analyses and opinions.

## BANKRUPTCY VALUATION ANALYST GUIDANCE

### 1. There Is an Extensive Scope of Services that Analysts Can Provide within the Bankruptcy Discipline

As commercial bankruptcies have become more complex and bankruptcy proceedings have become more contentious, the scope of the analyst's professional services has expanded. These services include the valuation of the debtor company business, business ownership interests, debt and equity securities, and intangible assets.

These services also include forensic analysis, such as forensic accounting, financial investigations, litigation support services, and expert witness testimony.

Finally, these services include independent financial advisory opinions, such as transactional fairness opinions, adequate consideration opinions, reasonably equivalent value opinions, reasonableness of the plan reorganization opinions, and other financial opinions.

Analysts routinely assess if and when the debtor or company enters into the zone of insolvency. Analysts also perform solvency and insolvency analyses for purposes of proving fraudulent transfer, preference payment, and other claims. In addition, analysts estimate the value of creditors' collateral, including debtor company tangible assets, intangible assets, and debt and equity securities.

Analysts may help to identify cash-generation debtor in possession (DIP) business or asset sale opportunities, and they opine on the fairness of the proposed sale price and sale transaction structure.

Debtor company business and asset valuations are an important component of securing DIP financing. Analysts opine as to whether various transactions involving debtor assets or securities protect the interests of the company creditors or equity holders.



Analysts may also help develop the plan of reorganization, assess the reasonableness of the plan of reorganization, and quantify the post-bankruptcy income tax and financial accounting implications of the plan of reorganization.

## 2. The Analyst Should Understand and Document All of the Elements of the Bankruptcy Valuation Assignment

The elements of the valuation assignment are typically described in the statement of the purpose and objective of the bankruptcy valuation. Before the start of the engagement, the analyst should understand the following elements of the bankruptcy valuation:

1. The valuation subject (which debtor businesses, business ownership interest, securities, or intangible assets are the subject of the analysis)
2. The subject ownership interest (this is typically, but not always, a fee simple ownership interest)
3. The appropriate standard of value (this is typically, but not always, fair market value)
4. The appropriate premise of value (this is typically, but not always, value in continued use as a going concern)
5. The appropriate valuation date (unless purely determined by law(s), the analyst should understand why the selected date is relevant to the bankruptcy proceeding)

These elements of the valuation are usually provided to the analyst by the client (or by the legal counsel) and are typically documented in the analyst's engagement letter.

## 3. The Analyst Should Perform the Appropriate Due Diligence in All Aspects of the Bankruptcy Valuation Assignment

Analysts typically perform reasonable data gathering and due diligence procedures before performing any quantitative or qualitative analyses. Analysts typically perform due diligence procedures related to various categories of documents considered in the valuation, including the following:

1. Historical financial documents regarding the debtor company business or assets

2. Historical operational documents regarding the debtor company business or assets
3. Historical legal documents regarding the debtor company business or assets
4. Historical ownership documents regarding the debtor company business or assets
5. Documents regarding the historical or proposed transaction
6. Legal documents regarding the bankruptcy proceeding
7. Prospective financial information regarding the debtor company business or assets
8. Publicly available information regarding the industry in which the debtor company operates
9. Publicly available information regarding guideline public companies
10. Publicly available information regarding guideline merger and acquisition transactions

Before relying on any documents or data, the analyst typically considers whether the document is complete, a draft or a final document, one document within a chain of documents, and the like. The analyst may also consider whether

1. the document was prepared contemporaneously to the subject transaction or valuation date or
2. the document was prepared after litigation was filed.

The analyst may further consider whether the document was contemporaneously relied on by any parties not related to the bankruptcy, and whether the document was ever reviewed by an auditor, regulator or other independent third party.

The analyst typically performs reasonable due diligence procedures related to any debtor company prospective financial information (PFI). This type of information includes any debtor company business plans, operating budgets, strategic forecasts or financial projections.

The analyst often assesses such PFI with regard to the following:

1. The debtor company's historical ability to project financial results
2. The debtor company's current results of operations
3. The debtor company's current plant and other capacity constraints



4. The debtor company's current position in the industry
5. Security analyst projections for guideline public companies
6. Industry projections from financial reporting agencies, securities brokerage firms, industry trade associations, and so forth

The analyst should have a reasonable basis for relying on documents or data selected for the valuation analysis.

#### 4. There Are Generally Accepted Valuation Approaches, Methods, and Procedures

There are generally accepted approaches, methods, and procedures with regard to the valuation of businesses, business ownership interests, securities, and intangible assets. These generally accepted approaches, methods, and procedures are promulgated by various valuation professional organizations.

The generally accepted approaches and methods are documented in the valuation professional literature and they are commonly used by professional valuation analysts. In fact, what makes a valuation method generally accepted is the fact that it is generally used in the valuation profession.

Analysts should be aware of the generally accepted methods and should be able to describe them to counsel, the finders of fact, and others. Experienced analysts consistently apply the generally accepted approaches and methods. The analyst who uses another valuation method should be able to explain the reason for (and the rationale behind) the departure from the generally accepted approaches and methods.

Analysts do not use the generally accepted methods simply because the methods are documented in promulgated standards and professional literature. Rather, analysts rely on the generally accepted methods because these methods are based on fundamental economic principles and established valuation theory.

#### 5. There Is a Generally Accepted Vocabulary That Is Used in the Valuation Profession

Most professions use technical jargon that is specific to that profession. The purpose of such technical jargon is not to obfuscate complex issues, but rather

to clarify them. Consequently, the valuation profession has its own technical jargon, and valuation analysts use that jargon as a shorthand means of communicating with each other and with the non-valuation parties to a bankruptcy.

The technical valuation jargon terms typically have specific meanings and relate to specific components of the generally accepted valuation approaches, methods and procedures. *The International Glossary of Business Valuation Terms* has been adopted by the four professional business valuation organizations in the United States. Bankruptcy valuation analysts typically attempt to comply with the terminology adopted in that glossary.

However, in practice, there may be a wide range of terms (used by professionals) referring to the same valuation concept. Similarly, business schools, which train numerous future investment bankers and finance professionals, also use a wide, nonstandardized range of terminology.

#### 6. There Are Generally Accepted Valuation Professional Standards and Practices

Some bankruptcy analysts are members of one or more of the following professional organizations: the American Institute of Certified Public Accountants (AICPA), the American Society of Appraisers (ASA), the Institute of Business Appraisers (IBA), and the National Association of Certified Valuators and Analysts (NACVA).

Each of these organizations has training and testing programs that lead to business valuation credentials, and each has a code of ethics and set of professional standards that their credentialed valuation analysts subscribe to.

However, there is no statutory, regulatory or judicial requirement that a bankruptcy valuation analyst be credentialed by any professional organization.

#### 7. There Are Income Tax and Financial Accounting Implications to Most Bankruptcy-Related Valuations

Not all analysts are income tax specialists or financial accounting experts. However, there are taxation and accounting implications to bankruptcy filings, bankruptcy transactions and bankruptcy emergencies. Debtor companies, creditors and finders of fact all consider the taxation and accounting implications of almost all bankruptcy-related decisions.

Therefore, analysts should be aware of these taxation and accounting implications, and, whenever relevant, analysts should include such implications in their bankruptcy valuations.

The income tax implications of bankruptcy can be complex. They can affect the value of a debtor company's stock and assets, and they can impact the value of completed or proposed bankruptcy transactions. In addition, such income tax implications can affect the reasonableness of a proposed plan of reorganization.

Analysts routinely rely on debtor company financial statements during the valuation process. Therefore, analysts should understand the financial accounting principles upon which the debtor company financial statements are prepared. Analysts should also understand any financial accounting effects on the transaction they are analyzing or the valuation they are preparing.

In addition, analysts without the appropriate tax accounting or financial accounting expertise may consult with either appropriately qualified colleagues or third-party accounting specialists.

## 8. Analysts Should Be Sufficiently Familiar with All of the Intangible Asset Considerations of the Bankruptcy Valuation

Analysts are often asked to value debtor company intangible assets, either (1) as an independent business interest or (2) as part of the analysis of the debtor going-concern business.

These intangible asset valuation analyses may be a component of a debtor company solvency analysis, fair market value analysis, transaction fairness analysis, collateral value analysis, reasonably equivalent value analysis and/or other bankruptcy-related analyses.

Intangible assets may also be a component of a Bankruptcy Code Section 363 asset sale transaction, and intangible asset licenses or sale/licenseback transactions are sometimes used as a source of cash flow generation for the DIP.

In addition, debtors often have to analyze whether or not they should reject any intellectual property (IP) license agreements. And, the IP licenses have to analyze the financial consequences of the debtor's rejection of those IP licenses.

Debtor company intangible assets are often grouped into the following four categories:

1. Financial intangible assets, such as cash, notes receivable and marketable securities

2. Intellectual property, including patents, copyrights, trade secrets, and (for many purposes) trademarks
3. Identifiable commercial intangible assets, such as contracts, permits, franchises, computer software, engineering drawings and technical documentation, customer relationships, supplier relationships, employee relationships and others
4. Goodwill and going-concern value

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**“[A]nalytsts should understand the financial accounting principles upon which the debtor company financial statements are prepared.”**

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The generally accepted approaches applied to the valuation of intangible assets are the cost approach, the market approach and the income approach. Each approach includes several valuation methods and each method includes several procedures. In addition, there are professional standards related to reporting the results of the intangible asset valuation. Analysts who do not have sufficient intangible asset valuation experience or expertise may either work with a more qualified colleague or confer with a third party valuation specialist.

## 9. Analysts Should Be Sufficiently Familiar with Any Real Estate and Tangible Personal Property Appraisal Considerations of the Bankruptcy Valuation

Most analysts are not experienced real estate or tangible personal property appraisers. Nonetheless, the value of the debtor company real estate and personal property may be an important component of the bankruptcy valuation analysis.

For example, the value of the debtor company tangible assets could affect a solvency analysis, fair market value valuation, collateral value analysis, transaction fairness opinion, or reasonably equivalent value opinion.

The value of the debtor company tangible assets could affect the availability of:

1. DIP financing (including sale/leaseback) opportunities,
2. cash-generating asset or business spin-off opportunities, and

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**“The analyst should also be aware of how different standards of value . . . may affect the tangible asset value conclusion, and how different premises of value . . . may affect the tangible asset value conclusion.”**

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3. the plant and equipment resources needed to implement a proposed plan of reorganization.

The analyst should be aware that there are various tangible asset appraisal approaches, methods, and procedures related to the development of the tangible asset value conclusion. In addition, there are professional standards related to the reporting of the results of the real estate and tangible personal property appraisals.

The analyst should also be aware of how different standards of value (e.g., fair market value versus market value) may affect the tangible asset value conclusion, and how different premises of value (e.g., value in continued use versus value in exchange) may affect the tangible asset value conclusion.

The analyst should be familiar enough with tangible asset appraisal principles and procedures to:

1. know when and how to rely on these value conclusions of such appraisals,
2. be able to distinguish between a professionally prepared and appropriately supported appraisal and an appraisal that is less credible,
3. be able to explain the appraisal analyses and conclusions to the client and the client’s legal counsel, and
4. be able to interpret the appraisal results for a bankruptcy proceeding finder of fact.

Analysts who do not have sufficient familiarity with tangible asset appraisals may either work with a more qualified colleague or confer with a third party appraisal specialist.

## **10. Analysts Should Be Familiar with Generally Accepted Valuation Reporting Standards**

Analysts have to communicate the results of their valuations of the debtor company business, business ownership interest, securities, or intangible assets.

This communication may involve a written report, oral report, expert testimony, or some combination of these three mediums.

There are standards and practices that are promulgated by various valuation professional organizations. Likewise, there are also standards and practices with respect to oral valuation reports, including expert testimony. However, these standards are mandatory only for the members of these organizations.

Often, expert witnesses have to comply with specific statutory and administrative requirements related to expert reports. These requirements may include the Federal Rules of Evidence.

The analyst may confer with legal counsel with regard to the application of specific expert testimony rules. In addition, legal counsel should instruct the analyst as to the appropriate reporting requirements with respect to expert reports and expert testimony.

Ultimately, it is the counsel’s responsibility to instruct the analyst with regard to the law. The analyst is not a lawyer, and the analyst should expect to receive and rely on legal instructions from bankruptcy counsel.

## **SUMMARY AND CONCLUSION**

The past decade or so has witnessed increased professionalism among valuation analysts, forensic accountants, financial advisers, and other financial professionals who practice in the bankruptcy discipline.

This increase in professionalism may have occurred in response to increased expectations from clients and client’s legal counsel, as well as the increased sophistication of courts, opposing legal counsel, and contrarian analysts.

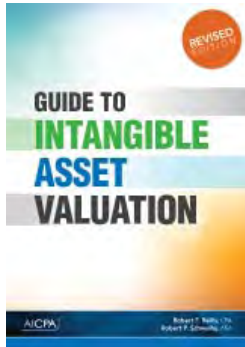
Clients, legal counsel, and judicial finders of fact expect bankruptcy analysts to be able to support their valuation analyses, conclusions and reports. And, they also expect bankruptcy analysts to be able to dispassionately assess the relative strengths and weaknesses of the opposing analyst valuation analyses, conclusions, and reports.

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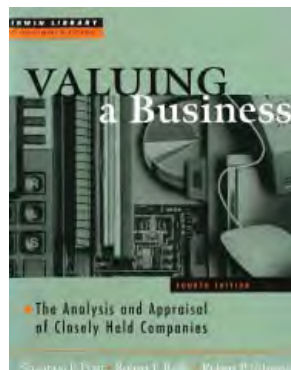
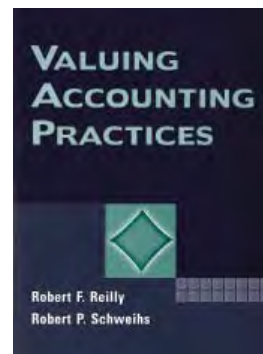
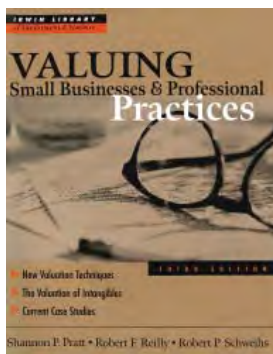
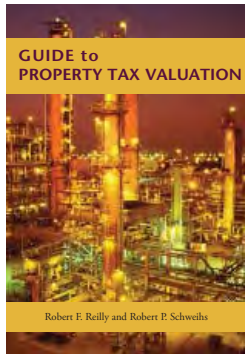
*Robert Reilly is a managing director of the firm and is resident in our Chicago office. Robert can be reached at (773) 399-4318 or at [rfreilly@willamette.com](mailto:rfreilly@willamette.com).*



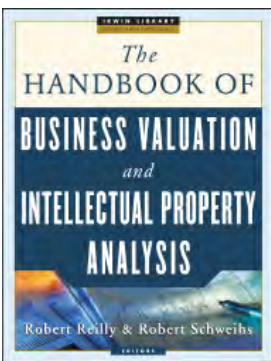
# Valuation Textbooks Authored by Robert Reilly and Robert Schweih



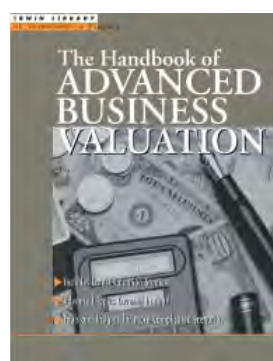
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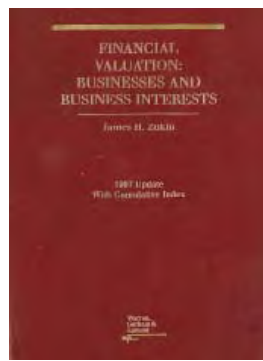
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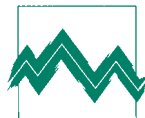
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- \* Authored by Robert Reilly and Israel Shaked, Ph.D.
- \*\* Authored with Shannon Pratt
- \*\*\* Edited by Robert Reilly and Robert Schweih



**Willamette Management Associates**



# Market Approach IP Valuation Methods

Robert F. Reilly, CPA

*Many valuation analysts automatically apply income approach or cost approach methods in the valuation of intellectual property (IP) within a commercial bankruptcy environment. This discussion describes and illustrates the market approach methods that may also be used in the bankruptcy-related IP valuation.*

## INTRODUCTION

Valuation analysts (analysts) may be asked to value debtor company intellectual property (IP) for many bankruptcy reasons.

These bankruptcy-related reasons include the following:

1. The assessment of the debtor company solvency
2. A secured creditor's collateral and protection
3. The fairness of a Section 363 IP asset sale or license transaction
4. The debtor's Section 365(n) rejection of its IP licenses (and the implications of that rejection on the IP licensees)
5. The reasonableness of a plan of reorganization
6. Various other reasons

Many analysts immediately think of applying income approach or cost approach intangible asset valuation methods to value a debtor company's IP. However, if sufficient market-derived pricing data are available, market approach intangible asset valuations can also be used to provide guidance with regard to the debtor company IP value.

First, this discussion summarizes the various types of debtor company IP that analysts may be asked to value within a bankruptcy context.

Second, this discussion summarizes the generally accepted IP valuation approaches and methods.

Finally, this discussion describes and illustrates a common market approach method for valuing debtor company IP. Analysts (and debtors, creditors, counsel, and other parties to the bankruptcy proceeding) should consider the application of market approach methods in the debtor company IP valuation.

## IP TYPES

Bankruptcy Code Section 101 (35A) provides the following definition of IP:

(35A) The term "intellectual property" means—

- (A) trade secret;
- (B) invention, process, design, or plant protected under title 35;
- (C) patent application;
- (D) plant variety;
- (E) work of authorship protected under title 17; or
- (F) mask work protected under chapter 9 of title 17;

to the extent protected by applicable non-bankruptcy law.

Outside of the bankruptcy context, trademarks and trade names are also considered to be common IP types. However, trademarks are not mentioned as part of the Bankruptcy Code definition of IP. Within the bankruptcy context or otherwise, these IP types



are considered to be a specific subset of the general category of commercial intangible assets.

For valuation purposes, the patent category of IP is often expanded to include patent applications, the proprietary technology and product or process designs encompassed by the patent, and the engineering drawings, schematics and diagrams, and other technical documentation that relate to the patent or patent application.

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

And, the trade secrets category of IP is often expanded to include any information or procedures that (1) the owner/operator keeps secret and (2) provides some economic benefit to the owner/operator.

Trade secret IP may include computer software source code, employee manuals and procedures, computer system user manuals and procedures, **station** or employee operating manuals and procedures, chemical formulas, food and beverage recipes, product designs, engineering drawings and technical documentation, plant or process schematics, financial statements, employee files and records, customer files and records, vendor files and records, and contracts and agreements.

## VALUATION APPROACHES AND METHODS

All of the generally accepted intangible asset valuation approaches may be applicable to the analysis of debtor IP. Exhibit 1 lists the generally accepted intangible asset cost approach, market approach, and income approach valuation methods that are applicable to the analysis of debtor company IP.

Market approach IP valuation methods are particularly applicable when there are a sufficient quantity of transactional data related to either comparable (almost identical to the subject) IP or guideline (similar from an investment risk and expected return perspective to the subject) IP. These IP transactions may relate to either sale or license transactions. Such arm's-length, third-party transactions involving IP are typically called "comparable uncontrolled transaction (CUT) sales or licenses."

The analyst attempts to extract market-derived valuation pricing metrics (e.g., sale pricing multiples, license royalty rates, or income

capitalization rates) from these CUT data in order to apply them to the corresponding metrics of the debtor company financial fundamentals. The result of applying the market-derived pricing multiples or rates to the debtor company fundamentals in the market approach indication of the subject IP value.

In the relief from royalty (RFR) method, the analyst searches for arm's-length licenses of IP that may provide pricing guidance with regard to the subject IP. Typically, the analyst is looking for a market-derived royalty rate that is expressed as a percentage (or multiple) of a common financial metric. The most common IP royalty rate metric that analysts look for is a royalty rate expressed as a percent of the licensee's revenue.

In other words, the analyst looks for arm's-length license agreements where the use of the comparable IP is licensed from an independent licensor to an independent licensee for a license fee that is expressed as a percentage of the licensee's revenue.

In the CUT method, the analyst searches for arm's-length sales of IP between independent parties. In other words, the analyst is looking for the arm's-length sale of a fee simple interest in the comparable IP from an independent seller to an independent buyer.

In particular, the analyst is looking for CUT sales data that can be expressed as a multiple of the number of IP units sold or as a multiple (or ratio) of the IP owner/operator's revenue or income. Such pricing metrics could include dollars per number of

### Exhibit 1 Generally Accepted Valuation Approaches and Methods Applicable to the IP Valuation

#### Cost approach methods

- Reproduction cost new less depreciation method
- Replacement cost new less depreciation method
- Trended historical cost less depreciation method

#### Market approach methods

- Relief from royalty method
- Comparable uncontrolled transactions method
- Comparable profit margin method

#### Income approach methods

- Differential income (with/without) method
- Incremental income method
- Profit split method (or residual profit split method)
- Residual (excess) income method

patents in an IP portfolio, dollars for line of computer software source code, or dollars per number of engineering drawings or blueprints transferred.

Exhibit 2 presents some of the automated data sources that analysts commonly refer to in the search for guideline IP sale or license transactions. These automated databases provide complete copies of the IP sale or license documents. The analyst reviews these potential CUT transactions and selects the most comparable transactions to provide pricing guidance related to the debtor company IP.

These databases are searchable by type of IP, by owner/operator SIC code, by transaction date time period, by country of transaction participants, and by other search criteria. These online data sources typically obtain their source documents from SEC-registered company (sale or license transaction participants) public filings.

In the comparable profit margin (CPM) method, the analyst searches for publicly traded companies that are sufficiently comparable to the subject debtor company—except that the subject debtor company owns and operates the unique IP and the selected public companies own and operate a

generic (or no) IP. This CPM method is based on the premise that the subject IP provides a profit margin advantage for the subject debtor company compared to the selected guideline companies.

This profit margin advantage is typically measured at the earnings before interest and taxes (EBIT) profit margin level. For example, let's assume that the subject IP owner/operator earns a 20 percent EBIT margin and that the median EBIT margin of the selected guideline companies is a 15 percent EBIT margin. According to the CPM method, the IP owner/operator's 5 percent profit margin advantage could be assigned as a reasonable royalty rate for the subject IP.

That royalty rate (based on the incremental profit margin) is multiplied by the debtor company's revenue to estimate a royalty income stream. The present value of the royalty income stream over the IP remaining useful life (RUL) is the CPM method value indication for the debtor IP.

Exhibit 3 provides a list of the common online data sources that analysts use to identify either industry average or comparable company profit margins. These comparable profit margins are then compared to owner/operator's profit margin in order to identify any IP-related excess profit margin.

## Exhibit 2 Common Online Databases for IP Sale or License Transaction Data

### RoyaltySource

www.royaltysource.com—This AUS Consultants database provides IP license royalty rates and IP sale data. Source documents are available for download.

### RoyaltyStat, LLC

www.royaltystat.com—RoyaltyStat is a subscription-based database of IP license royalty rates, IP license agreements, and IP sale data compiled from Securities and Exchange Commission documents.

### Royalty Connection

www.royaltyconnection.com—Royalty Connection™ provides online access to license royalty rate and other license information related to all types of technology, patents, trade secrets, and know-how IP.

### ktMINE

www.bvmarketdata.com—ktMINE is an interactive database that provides direct access to IP license royalty rates, IP license agreements, and IP sale agreements. Source documents may be printed.

## MARKET APPROACH IP VALUATION ILLUSTRATIVE EXAMPLE

Let's assume that DIP Company is seeking debtor in possession (DIP) financing. All of the debtor company's tangible assets are already pledged as a secured financing collateral. However, the lender will accept the debtor's trademarks and trade names as collateral for the DIP financing. Before extending the DIP financing, the lender requires an independent valuation of the subject trademarks and trade names.

An analyst is retained to perform the IP collateral value valuation as of January 1, 2016. The analyst selects the market approach and the RFR method.

After analyzing several guideline IP license agreements, the analyst selects 2 percent of revenue as the appropriate market-derived IP license royalty rate. DIP Company management provided the analyst with a five-year revenue projection for the debtor company.

Working with DIP Company management, the analyst selected (1) a 12 percent present value discount rate (based on the debtor's weighted average cost of capital), (2) a 15-year trademark total RUL,

### Exhibit 3 Common Online Data Sources for the Selection of IP CPM Data

FactSet Research Systems, Inc.—FactSet  
Hoover's, Inc.—Hoover's Company Records  
Mergent, Inc.—MergentOnline  
Standard & Poor's—Capital IQ  
Thomson Reuters—Thomson ONE Analytics

and (3) a 0 percent expected long-term growth rate beyond the discrete projection period.

The analyst's market approach RFR method IP valuation analysis is summarized in Exhibit 4.

Based on the illustrative fact set, the analyst concluded that the fair market value of the hypothetical DIP Company trademarks and trade names is \$590 million.

## SUMMARY

Analysts may be called on to value a debtor company's IP for a variety of bankruptcy-related reasons. This discussion summarized the generally accepted IP valuation approaches and methods.

Analysts (and other parties to the bankruptcy) often initially think of applying income approach or market approach valuation methods to value the debtor company IP. However, if there are sufficient market-derived sale or license transactional data available, the market approach can also provide meaningful pricing guidance with regard to the debtor company IP.

This discussion summarized the generally accepted market approach IP valuation methods. And, this discussion provided a simplified illustration of one common market approach IP valuation method—the RFR method. Analysts (and other parties to the bankruptcy) should consider market approach methods in the bankruptcy-related IP valuation.

Robert Reilly is a managing director of our firm and is resident in our Chicago practice office. Robert can be reached at (773) 399-4318 or at [rfreilly@willamette.com](mailto:rfreilly@willamette.com).



## SECTION 2704 PROPOSED REGULATIONS

Continued from page 50

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27. Marc Vianello, "Rebutting the Critics of the DLOM Methodology," *Business Valuation Update* 18, no. 9 (September 2012).
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29. John D. Finnerty, "The Impact of Transfer Restrictions on Stock Prices," *Analysis Group/Economics* (October 2002).
30. John D. Finnerty, "An Average-Strike Put Option Model of the Marketability Discount," *The Journal of Derivatives* 19 (Summer 2012): 52–69.
31. Stockdale, *BVR's Guide to Discounts for Lack of Marketability*, 204.
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33. Stillian Ghaidarov, "Analysis and Critique of the Average Strike Put Option Marketability Discount," workpaper (September 24, 2009), available at [papers.ssrn.com/papers.cfm?abstract\\_id=1478266](http://papers.ssrn.com/papers.cfm?abstract_id=1478266).
34. Stockdale, *BVR's Guide to Discounts for Lack of Marketability*, 206–209.
35. Robert R. Trout, "Minimum Marketability Discounts," *Business Valuation Review* (September 2003).
36. Robert M. Seaman, "Latest LEAPS Study Sheds Light on Company Size and DLOMs," *Business Valuation Update* 19, no. 9 (September 2013).
37. Companies examined included Amazon, Ford Motor, General Motors, Morgan Stanley, Microsoft, Nextel, Qlogic, Qualcomm, and Tyco.
38. Trout, "Minimum Marketability Discounts": 124–5.
39. Robert M. Seaman, "Minimum Marketability Discounts—5th Edition," whitepaper (March 2010).
40. Robert M. Seaman, "Minimum Marketability Discounts—4th Edition," whitepaper (March 2009): 14.
41. *Mandelbaum v. Commissioner*, T.C. Memo 1995-255 (June 12, 1995).
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43. *Ibid.*

John E. Elmore, JD, CPA, is a vice president of the firm and is resident in our Atlanta office. John can be reached at (404) 475-2303 or at [jeelmore@willamette.com](mailto:jeelmore@willamette.com).



**Exhibit 4**  
**DIP Company**  
**Trademarks and Trade Names**  
**Fair Market Value Valuation**  
**Market Approach—Relief from Royalty Method**  
**As of January 1, 2016**

	Projected Calendar Years				
	2016	2017	2018	2019	2020
	\$000	\$000	\$000	\$000	\$000
<b>Discrete Projection Period Trademark Income:</b>					
Management-Provided Revenue Projection [a]	8,634,139	8,358,945	8,042,393	7,720,369	7,377,326
Arm's-Length Trademark License Royalty Rate [b]	2%	2%	2%	2%	2%
Projected Pretax Trademark License Income	172,683	167,179	160,848	154,407	147,547
Less: Projected Income Tax Rate [c]	<u>37%</u>	<u>37%</u>	<u>37%</u>	<u>37%</u>	<u>37%</u>
Projected After-Tax Trademark License Income	108,790	105,323	101,334	97,277	92,954
Discounting Periods [d]	1	2	3	4	5
Present Value Factor @ 12% [e]	<u>.8929</u>	<u>.7972</u>	<u>.7118</u>	<u>.6355</u>	<u>.5674</u>
Present Value of Trademark License Income	<u>97,138</u>	<u>83,964</u>	<u>72,130</u>	<u>61,820</u>	<u>52,742</u>
Sum of Present Value of Trademark License Income	<u>397,018</u>				
<b>Terminal Period Trademark Income:</b>					
Fiscal 2021 Normalized Trademark Income [f]	\$92,954				
Direct Capitalization Multiple [g]	<u>5.6502</u>				
Terminal Value of Trademark License Income	525,209				
Present Value Factor @ 12%	<u>.5674</u>				
Present Value of Terminal Period Trademark Income	<u>\$298,003</u>				
<b>Trademark Value Summary:</b>					
Present Value of Discrete Period Trademark Income	\$287,794				
Present Value of Terminal Period Trademark Income	<u>298,003</u>				
Fair Market Value of the DIP Trademarks (rounded)	<u>\$590,000</u>				

[a] Revenue projection provided by DIP Company management, consistent with the company's plan of reorganization.

[b] Based on the analyst's selection and review of arm's-length guideline IP license agreements.

[c] Based on the DIP Company expected income tax rate.

[d] Assumes year-end discounting for simplification purposes only.

[e] Based on the DIP Company 12 percent weighted average cost of capital.

[f] Based on the 2020 projected after-tax trademark income and a 0% expected long-term growth rate.

[g] Based on a present value of an annuity factor for a 12 percent discount rate and a 10-year expected RUL (after the 5-year discrete projection period).

## On Our Web Site

*We have recently redesigned and updated our website to make it mobile-friendly. Please visit us at [www.willamette.com](http://www.willamette.com) to view Insights issues, read articles and presentations from our professional staff, and learn about the variety of valuation, forensic analysis, and financial advisory services we offer.*

### Recent Articles and Presentations

Robert F. Reilly, a managing director of our firm, delivered a webinar for the National Association of Certified Valuators and Analysts Consultants' Training Institute. Robert's webinar was held on November 11, 2016. The topic of his webinar was "Intangible Asset Valuation: Cost Approach Valuation Methods and Procedures."

In his webinar, Robert discussed the generally accepted intangible asset valuation approaches and methods. He then explored considerations related to the cost approach. Robert provided an illustrative example of the cost approach. Finally, Robert reviewed intangible asset valuation report considerations.

Robert F. Reilly delivered another webinar for the National Association of Certified Valuators and Analysts Consultants' Training Institute. This webinar was held on November 7, 2016. The topic of Robert's webinar was "Valuation of Businesses, Securities, and Intangible Assets for Bankruptcy Purposes."

In this webinar, Robert discussed the common reasons for conducting a bankruptcy valuation. He explored analytical issues that practitioners face in performing bankruptcy valuations. Finally, Robert reviewed caveats for valuation analysts performing bankruptcy valuations.

Robert F. Reilly delivered a presentation to the Business Valuation and Forensic Accounting Conference, which was held September 12-14, 2016, in Melbourne, Australia. The conference was sponsored by the Chartered Accountants of Australia and New Zealand. The title of the presentation was "The Benefits of Professional Standards to CA Valuation Specialists."

Robert presented an overview of the development of standards in the United States. He explored the difference between transactional valuations and notational valuations and discussed the various types of valuation services. Robert also reviewed the differences and similarities between U.S. and Australian/New Zealand standards.

Robert F. Reilly also presented a workshop at the Business Valuation and Forensic Accounting Conference, which was held September 12-14, 2016, in Melbourne, Australia. The title of Robert's workshop was "Intangible Asset Valuation Approaches, Methods, and Procedures."

Robert's workshop explored the identification of various types of intangible assets and intellectual property. He reviewed data gathering and due diligence procedures. Robert explored the cost approach, income approach, and market approach to intangible asset valuation and presented an illustrative example of each method.

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# Communiqué

## IN PRINT

Robert Reilly, firm managing director, authored an article that appeared in the September/October 2016 issue of *Construction Accounting and Taxation*. The title of Robert's article was "Consider the Asset-Based Approach in the Construction Company Valuation."

Robert Reilly also authored an article that appeared in the July/August 2016 issue of *Construction Accounting and Taxation*. The title of Robert's article was "Discount for Lack of Marketability in the Closely Held Security Valuation."

Robert Reilly also authored an article that appeared in the November 2016 issue of *Practical Tax Strategies*. The title of Robert's article was "Discount for Lack of Marketability Considerations Related to Closely Held Company Securities."

Robert Reilly is particularly proud to be recently appointed to the Editorial Board of *Practical Tax Strategies*, a Thomson Reuters professional publication.

Robert Reilly also authored an article that appeared in the November 2016 issue of *Transaction Advisors*. The title of Robert's article was "Considerations of a Taxable Stock Purchase Acquisition Structure."

Weston Kirk, Atlanta office manager, authored an article that appeared in the Winter 2016 issue of *Insights*, that was included in the recently issued Business Valuation Resources (BVR) special report regarding the proposed Section 2704 Regulations. That BVR special report was titled *Proposed IRC Section 2704: Potential Impacts on Estate and Gift Tax Valuations*.

## IN PERSON

Robert Reilly delivered a webinar that was jointly hosted by the National Association of Certified Valuators and Analysts (NACVA) and the Consultants Training Institute (CTI) on November 7, 2016. The topic of Robert's webinar presentation was "Valuation of Businesses, Securities, and Intangible Assets for Bankruptcy Purposes."

Robert Reilly also delivered a webinar that was jointly hosted by NACVA/CTI on November 11, 2016. The topic of Robert's webinar presentation was "Intangible Asset Valuation: Cost Approach Valuation Methods and Procedures."

Robert Reilly delivered a presentation at the NACVA Financial Forensics and Expert Witness

annual conference held on November 15, 2016, in Chicago. The topic of Robert's conference presentation was "Valuation of Distressed Businesses and Plan of Reorganization."

Curtis Kimball, Atlanta office managing director, delivered a webinar hosted by Business Valuation Resources on September 29, 2016. The topic of Curt's webinar presentation was "The IRS' Proposed Section 2704 Regulations: The Impact on and the Future of Estate and Gift Valuation."

Curtis Kimball also delivered a presentation at the LSU Estate Planning Seminar 2016 in Baton Rouge on October 28, 2016. The topic of Curt's presentation was "IRS Proposed Regulations for Section 2704: Update."

Kevin Zanni, Chicago office director, delivered a presentation at the Financial Consultants' SuperConference held in Las Vegas, on December 5-7, 2016. The topic of Kevin's conference presentation is "A Step-By-Step Guide to Applying a Quantitative Method to Support the Discount for Lack of Marketability Selection."

Kyle Wishing, Atlanta office manager, delivered a presentation at the Georgia NACVA fall meeting on October 21, 2016, in Atlanta. The topic of Kyle's conference presentation was "Overview of Transaction Opinions."

## ENCOMIUM

Robert Reilly is proud to serve as a member of the conference planning committee for the 47th Annual Wichita Appraisal for Ad Valorem Taxation Program. The conference focuses on property taxation issues related to the communications, energy, and transportation industries. As always, the conference will be held at Wichita State University. This year, the annual four-day conference will be held during the last week of July 2017.

Robert Reilly and Ryan Stewart were proud to serve as a judges for the fifth annual Private Business Valuation Challenge. This year, the student competition was held on November 12, 2016, at the J. Mack Robinson College of Business of Georgia State University. Robert and Ryan served as two of the three distinguished judges in this national student competition. Robert was appointed by the American Institute of Certified Public Accountants (AICPA), one of the co-sponsors of this annual student competition.

# INSIGHTS ARCHIVES



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*



Autumn 2014  
*Focus on Gift, Estate, and Generation-Skipping Tax Issues*



Summer 2016  
*Thought Leadership in Property Tax Valuation Issues*



Summer 2015  
*Focus on Reasonable Compensation in Eminent Domain and Expropriation Controversies*



Summer 2014  
*Focus on Forensic Analysis and Litigation Services*



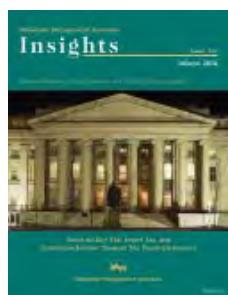
Spring 2016  
*Focus on Intellectual Property*



Spring 2015  
*Focus on Corporate Transaction Advisory Services*



Spring 2014  
*Focus on Property Tax Intangible Asset Valuation Analyses*



Winter 2016  
*Focus on Gift Tax, Estate Tax, and Generation-Skipping Transfer Tax Valuation*



Winter 2015  
*Focus on Intercompany Transfer Price and Other Income Tax Insights*



Winter 2014  
*Focus on Bankruptcy and Reorganization Financial Advisory Services*

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