Best Practices Discussion

Guaranty Fee Analysis for Intrafamily Promissory Notes

Weston C. Kirk

When one guarantees a transaction promissory note for another party—in practicality, "lending" the guarantor's creditworthiness to the obligor—does this guaranty arrangement provide the obligor with economic value? Does this guaranty create a gift tax reporting requirement for the guarantor? This discussion considers the elements of a transaction promissory note guaranty arrangement between family members (although the context can be extended to any two or more parties). This discussion also describes valuation principles to assist the analyst in quantifying the guaranty's economic value, either (1) in the form of a fee in exchange for the guaranty or (2) in the form of a gift from the guarantor to the obligor.

BACKGROUND AND HISTORY

A guaranty is a legal arrangement that provides assurance to answer for the payment of another's debt or duty. It is most frequently used to designate a private transaction in which one person, in order to obtain some trust, confidence, or credit from another, engages another party to be answerable to the lender of said trust, confidence, or credit in an instance of default. A guaranty may also designate a treaty through which claims, rights, or possessions are secured.

In this discussion, a guaranty is differentiated from the colloquial "personal guaranty" in that a guaranty is a legal concept and obligation that produces an economic effect. A personal guaranty, on the other hand, is often used to refer to a promise made by an individual which is supported by, or assured through, the word of that individual (and most commonly by that person's other assets).

The provider of the guaranty is called the "surety" or the "guarantor." The person to whom the guaranty is provided is the "guarantee," "creditor," or "obligee," while the person whose payment or performance is secured thereby is termed the "obligor," "the principal debtor," or simply, "the principal." In this scenario, the obligor would pay the guarantor to guaranty its debt with the obliged.

The *Merriam-Webster's Collegiate Dictionary* defines "guaranty" as an "undertaking to answer for the payment of a debt or the performance of a duty of another in case of the other's default or miscarriage . . . something given as security . . . the protection of a right afforded by legal provision."[1]

The *Funk & Wagnalls Standard Desk Dictionary* defines "guaranty" as a "pledge or promise to be responsible for the contract, debt, or duty of another person in case of his default . . . something given or taken as security."[2]

This discussion presents the salient attributes of intrafamily guaranty arrangements in the context of estate and gift tax transactions. And, this discussion outlines the analysis of intrafamily guaranty fees.

INTRAFAMILY PROMISSORY NOTES

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

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. It 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.

Like most promissory notes, intrafamily promissory notes have a stated repayment of principal plus interest over a period (or on demand). The payments of both interest and principal can occur together or separately on a daily, weekly, monthly, quarterly, or annual basis; at maturity; or some variety thereof.

Although not always the case, most intrafamily notes have a stated interest rate of the applicable federal rate ("AFR").

AFRs are calculated based upon the "outstanding marketable obligations of the United States."[3] As such, AFRs are typically lower than the rates of interest commercially available to borrowers, even those with excellent credit.

When an original promissory note is issued at the prevailing AFR, the loan is deemed to have provided for adequate interest. Provided that the transfer is a bona fide sale for full and adequate consideration, a promissory note issued at the AFR does not bear a gift tax consequence because the note was not a below-market loan.[4]

INTRAFAMILY PROMISSORY NOTE GUARANTIES

Each guaranty arrangement is unique. Generally, no two guaranty arrangements are the same—time

changes, the underlying assets change, the amounts change, and so on.

Most intrafamily guaranties tend to utilize a generic "rule of thumb" fee of 1 percent of the note principal being secured. This may be accurate in some cases, but not accurate in all cases. As guaranties on complex assets held by and financed among family members become more sophisticated and controversial, especially in the consideration of the Internal Revenue Service (the "Service"), perhaps these unique guaranty arrangements should be valued as part of the transaction process.

Some attorneys have indicated that the rise of intrafamily promissory note guaranties was spurred by the meeting notes of Martin M. Shenkman, Esq., of Shenkman Law, from the Heckerling Institute conference in 2017 during the afternoon session on sophisticated estate plans by presenters John W. Porter, Esq., of Baker Botts and S. Stacy Eastland of Goldman, Sachs & Co.

In the Shenkman notes, Mr. Shenkman suggests that for trusts established for the child, as beneficiary, to purchase limited partnership interests from parent for a note, the trust should, at least, have the ability to pay the note. Otherwise, there could be a concern that the parent had a deemed retained interest. Shenkman suggests that a general rule of thumb should be 10:1 debt to equity in the trust.

In lieu of a seed gift (or other assets held by the trust), Shenkman suggests that some practitioners may instead "seed" the trust by a guaranty, typically a guaranty of 10 percent of the note. Furthermore,

he adds that for a guaranty to provide substance to the transaction, there should be an ability for the guarantor to pay, and that a guaranty fee should be paid by the trust to the guarantor.[5]

Carrying forward this hypothetical example, a child's trust purchases limited partnership interests from the parent for a note. The lender (parent) may request that the borrower (child's trust) have "seed funding" of 10 percent of the value of the note. Perhaps, a grandparent can provide a guaranty to a parent for 10 percent of the note held by a child's trust during the note's existence.

When the borrower (child's trust) is unable to make principal and/or interest payments on the note (and all other avenues of repayment, including the liquidation of the limited partnership interests initially acquired), the guarantor (grandparent) would pay the lender (parent) up to 10 percent of the note principal amount.

For the guaranty to have any value, the trust would need to be creditworthy and the only way for the trust (in this case) to be creditworthy, assuming the trust has no other assets of significant value, is if the limited partnership interests generate annual distributions and capital appreciation during the holding period (or life of the note/guaranty).

During the holding period, if the limited partnership interests generate annual distributions and capital appreciation, then the seller will not need to exercise the guaranty.

If this financial arrangement provides the comfort the seller demands (i.e., a guaranty of the first default not to exceed 10 percent of the note initial principal), then the seller should require the trust to directly enter into the financial arrangement. Without creditworthiness better than the trusts, there is no reason for the grandfather to be involved in this guaranty.

The guaranty fee is often intended to cover the period through the maturity date of the underlying debt. However, guaranty fees can take all shapes and sizes.

For example, a guaranty could only be provided for a short period of time (and not the entire duration of the note). Alternatively, there could be two guarantors, wherein one guarantees the first portion of the default amount and another guarantor guarantees the second portion of the default amount.

An exhaustive list of elements that make each guaranty unique, and the factors that affect the fair market value (or economic value) of guaranty fees are as follows:

1. Note terms and conditions
2. Guaranty terms and conditions
3. Time of the guaranty (e.g., the maturity date of the note)
4. Amount of the guaranty
5. Stop loss of the guaranty (if any)
6. Terms of the guaranty agreement
7. Process of when the guarantor must pay
8. Ability for the guarantor to hedge the borrower's risk
9. Current value of borrower's assets/equity
10. Types of assets held as collateral under the note
11. Ability/expectation of future values of the assets held by the borrower
12. Ability of the borrower's assets to generate income (by virtue of distributions or liquidity events) for interest and principal payments
13. Volatility of the borrower's assets (current, prospective)—individually and collectively
14. Ability of the borrower to pay the note
15. Nature of payments (e.g., balloon note with one payment of principal and interest, or equal annual payments)
16. Prepayment plan (if any)
17. Timing of principal payments and interest accruement

Often there is a requirement of prior recourse against the borrower in guaranty arrangements. That is because the guaranty is often structured as a guaranty of collection—and not as a guaranty of payment.

The obligations of the guarantor are often further conditioned and contingent upon events taking place, such as the following:

1. The receipt by the guarantor of written notice from seller of seller's commencement of actions diligently to pursue collection of the obligations from the borrower
2. The seller's actual commencement of and diligent pursuit in good faith for remedies to collect the obligations under the note
3. The failure of seller to collect any part of the obligations being guaranteed after the attempt to collect
4. A detailed notice from seller to the guarantor of the amount of the obligations remaining outstanding after the attempt to collect

Furthermore, the guaranty fee agreement will often outline various covenants for the borrower and the guarantor to comply with. These covenants may include, but are not limited to, the following:

1. Buy and sell investment assets only in bona fide sales for full and adequate consideration

2. Not permit any material part of such guarantor's assets to be levied upon under any legal process

3. Not transfer all or any material part of such guarantor's assets (or, in the case of a guarantor that is a trust, not distribute any part of the principal of such trust) or engage in any other activity to the extent that such transfer (or distribution) or other activity would impair the ability of such guarantor to make any payment when due under the guaranty

4. Comply with all applicable federal, state, and local laws

5. Pay all taxes to the extent payable by such guarantor accruing after the date first set forth in the guaranty

ANALYSIS OF INTRAFAMILY GUARANTY FEES

In the example illustrated above, the child's trust will need to compensate the grandparent for the guaranty of up to 10 percent of the loan between the child's trust and the parent. Again, the parent (within the perspective of an arm's-length transaction) may (and in this hypothetical case will) require the child's trust to seek a guarantor for the loan used to acquire a limited partnership interests in the family limited partnership.

That is because, in this case, the child's trust has no other assets to act as collateral to the note principal and interest payments.

The analyst will be asked to value the guaranty fee to be paid by the child's trust to the grandparent in order for the grandparent to adopt the risk of potentially paying up to 10 percent of the note principal if the child's trust defaults. This 10 percent portion of the note principal being guaranteed is known as the "value at risk" or the "maximum guaranty amount."

Important considerations to understand when estimating the economic value of guaranty fees (oftentimes under the definition of fair market value) include the following:

1. Guarantors receive premiums to assume the value at risk if the borrower defaults on any of the payment obligations to the seller.

2. Guarantors maximum upside is the premium received from the borrower.

3. Guarantors are liable if the borrower defaults on any payment to the debtor at any time through the maturity date of the debt.

4. The borrower is in default if it is unable to timely make the annual interest payments at the stipulated interest rate or payment of the principal balance due, with any unpaid accrued interest, upon the note's maturity dates.

5. If the assets held by the borrower decrease in value below the note balance (with accrued interest), the guarantors may ultimately become liable for payments to the seller up to the maximum guaranty amount.

The analyst will consider which valuation methods under the three generally accepted property valuation approaches may be best to apply in the guaranty fee analysis. These three property valuation approaches are the market approach, the income approach, and the cost approach.

The market approach may be the best approach to apply in most guaranty fee analyses to estimate the value of the guaranty fee by virtue of applying a put option model.

In the hypothetical case illustration, the factors above most closely resemble the economic elements which are best captured by a put option arrangement modeled by applying an option pricing model ("OPM"). Additionally, the unique factors of an effective "stop loss" for the guarantor of 10 percent of the note principal, such as in the hypothetical case, may be measured by a bull put option spread OPM.

A bull put spread is an option trading strategy that assumes the underlying asset will go up moderately in the near future. The trader sells a put option in the money (receiving a premium) and buys a put option out of the money (paying a smaller premium). The strategy has a maximum profit of the net premium received less commissions paid (in this case, the fees paid to arrange the guaranty fees have already been borne by both parties and are excluded from consideration in this analysis).

The maximum profit is achieved when the price of the underlying asset closes at or above the strike price of the short put (the put purchased in the money).

An example of a bull put spread profit or loss diagram is presented in Figure 1 in this discussion.[6]

An option is a financial derivative that represents a contract sold by one party (the option writer) to another party (the option holder). The contract offers the buyer the right, but not the obligation, to buy (call) or sell (put) a security or other financial asset at an agreed-upon price (the strike price) during a certain period of time or on a specific date (exercise date).

A put option gives the option holder the right to sell a security at a certain price on or before the exercise date. In that way, the put option buyer (the option holder) expects the underlying security to decrease in value. If the security price decreases, the option buyer (who holds the option) will be able to buy the security at the market price (the lower price) and put the share to the option seller (the option writer) for the strike price (which is above the current market price).

The premium exchanged for this type of contract represents the maximum upside for the put option writer. The seller of this option is betting that the security does not fall below the strike price. To the put option buyer, the premium paid for this option is his or her maximum loss.

Figure 1
Profit and Loss of the Hypothetical Guaranty Fee Arrangement
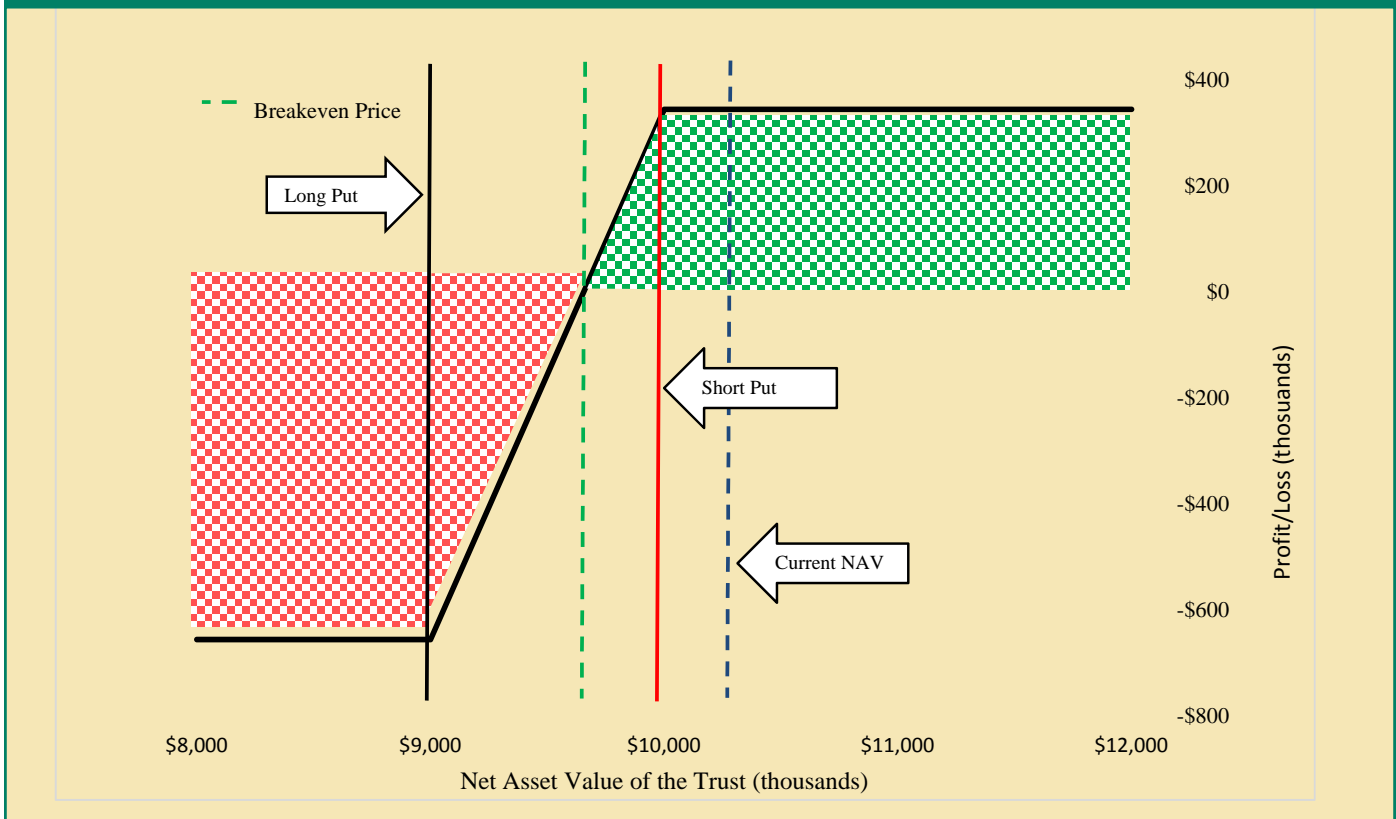
If the market price does not decrease below the strike price during the time period of the option contract, the option is denoted as expiring worthless.

However, if the option is exercised while the security market price is below the strike price, the put option holder economically benefits from the price difference of the market price and the strike price, less the option premium paid for this right.

Options that are able to be exercised during the life of the option are denoted as American options. Options that can only be exercised at the exercise date are denoted as European options. In either case, the fee (or premium) that the parties to a put option agreement (or contract) agree to needs to be estimated.

The most widely used option premium pricing model applied to estimate the premium exchanged from the buyer (who is long the contract) to the seller (who is short the contract) is the Black-Scholes option pricing model ("BSOPM").

The basic BSOPM depends on five valuation variables. These variables are as follows:

1. The current price of the underlying asset (the spot price)
2. The exercise price of the option (the exercise price)
3. The length of time to the expiration of the option
4. The risk-free interest rate
5. The standard deviation of the annual rate of return on the underlying asset(s)

The BSOPM is expressed in two parts, by the call option value and the put option value, as follows:

Call option value (C) = $S \times N(d_1) - Xe^{-rt} \times N(d_2)$

Put option value (P) = $Xe^{-rt} \times N(-d_2) - S \times N(-d_1)$

where:

S = Stock price

X or E = Exercise (strike) price

$N(\ )$ = Value of cumulative normal distribution at the point ( )

d_1 = $\dfrac{ln(S/E) + (r + \sigma^2/2)^t}{\sigma\sqrt{t}}$

d_2 = $d_1 - \sigma\sqrt{t}$

ln = Natural logarithm

r = Short-term riskless rate (continuously compounded)

t = Time to expiration, in years

e = Base of natural logarithms

σ = Annual standard deviation of return (usually referred to as "volatility")

In the hypothetical case example, the analyst could use the BSOPM to estimate the price of two theoretical put options that mirror the attributes of the guaranty arrangement in order to estimate the fair market value of the guaranty fee.

The first put option would have an exercise price at the value of the note ("Option 1") and second put option would have an exercise price 10 percent below the value of the note ("Option 2").

The difference in the prices of Option 1 and Option 2 is the fair market value of the guaranty fee.

That is because an investor assuming the same (or similar) risk of the guarantor would buy Option 1 and sell Option 2, thus locking in a maximum profit and minimizing his or her potential losses to the first 10 percent of the drop in the value of the underlying asset.

In applying the BSOPM to estimate the put value of Option 1 and Option 2, the analyst determines the following:

1. The expected volatility of the underlying asset portfolio held by the borrower
2. The time period of the guaranty fee
3. The risk-free rate during the duration of the guaranty
4. The dividend yield on the underlying assets held by the borrower (if any)[7]

The most complicated input (and the most material driver of the option values) is expected volatility. In most interfamily loan guaranty fee scenarios, the analyst will be dealing with private investment assets, so either a look-through approach (looking at the underlying assets of the private investment assets) or comparable approach (looking at guideline or comparable publicly traded volatile assets) is used.

Further, if the borrower has meaningful collateral to pledge, the value of that collateral should be analyzed, during the holding period, to analyze if

> "The most widely used option premium pricing model applied to estimate the premium exchanged from the buyer . . . to the seller . . . is the Black-Scholes option pricing model. . . ."

there is more or reduced risk regarding the creditworthiness of the borrower.

If the borrower has additional assets, say, positive equity in the trust, then the current price of the underlying assets used in the BSOPM formula makes the put options not at-the-money but out-of-the-money (i.e., lowering the value of the guaranty fee).

In analyzing the spread (or differential) between the cost to buy Option 1 for a premium and sell Option 2 for a premium, the cost of this bull put spread analyzes the probability that the guarantor payment of the value is at risk.

The difference in value between these two instruments (the net premium) of this position is the amount that represents the fair market value of the guaranty fee if paid by the borrower to the guarantor all at once on the effective date of the guaranty in order for the guarantor to assume the risk under the terms and obligations of the guaranty.

Illustrative Example

Exhibit 1 illustrates a hypothetical calculation of the guaranty fee derived by the use of the bull put spread BSOPM presented in this discussion.

Consistent with the hypothetical example used throughout this discussion, Figure 1 illustrates the same hypothetical guarantor potential profit or loss.

Exhibit 1 illustrates that the guarantor is willing to accept a guaranty fee of $345,000 to be liable for up to the first 10 percent of the $10 million note principal if default occurs (assuming the note accrues until maturity in year nine and that interest is paid annually or accrued therein). That is, the guarantor is willing to be compensated $345,000 to be potentially liable to the seller for up to $1 million under the guaranty arrangement. This amount is predicated on the simplifying assumptions that (1) the guaranty is a nine-year term, (2) the trust has some positive equity value of $250,000 cash to satisfy administrative expenses and some (if not all) interest payments, (3) interest (if not paid) can accrue until maturity, (4) the risk of default is likely at the maturity of the note, and (5) the trust assets have a volatility of 20 percent.

In fact, Figure 1 illustrates the potential profit or loss of the guarantor in this hypothetical scenario. The maximum profit for the guarantor (the green area) is the premium received (the $345,000); whereas, the maximum loss for the guarantor (the red area) is the maximum potential guaranty amount net of the guaranty fee (or premium) received ($655,000 or $1 million less the guaranty fee of $345,000).

Summary and Conclusion

Guaranty fees for intrafamily promissory note transactions are becoming more commonly used by families in estate and gift tax regulated transactions.

This discussion provided a background about guaranty fees and some valuation considerations during the guaranty fee analysis. Although this discussion provided an example and a means to estimate that guaranty fee, every guaranty fee arrangement is unique, and each valuation will be different based on case-specific facts and circumstances. That is, the BSOPM may be a method to estimate the intrafamily guaranty but it may not be the best method (or the only method) to apply in all situations.

The guaranty fee analysis can be quite complicated. A robust analysis is often required to analyze the factors in each situation.

Guaranty fee valuation reports prepared for a gift (or estate) tax filing purpose often require a qualified appraisal report. This type of report can assist the taxpayer in establishing "adequate disclosure" under the requirements set forth by the Service in Regulation 301.6501(c)-1(f)(3).

If the taxpayer can document that the guaranty fee paid by the borrower to the guarantor is at an arm's-length amount that is consistent with the fair market value of the guaranty, then the taxpayer would disclose and report to the Service that no gift was made by virtue of the guaranty among the parties.

Notes:

1. *Merriam-Webster's Collegiate Dictionary*, 11th edition (Springfield, MA: Merriam-Webster, 2003), 554.

2. *Funk & Wagnalls Standard Desk Dictionary* (New York: Funk & Wagnalls, 1984), 285.

3. See I.R.C. Section 1274(d)(1)(C).

4. I.R.C. Section 7872(e)(1): The term "below-market loan" means any loan if (a) in the case of a demand loan, interest is payable on the loan at a rate less than the applicable federal rate or (b) in the case of a term loan, the amount loaned exceeds the present value of all payments due under the loan.

5. Martin M. Shenkman, Esq., Heckerling Institute 2017, Thursday, Day 4, Notes (January 13, 2017), 17 (provided by Leimberg Information Services, Inc., Steve Leimberg's Estate Planning Email Newsletter Archive Message #2504).

6. http://www.theoptionsguide.com/bull-put-spread. aspx

7. The basic BSOPM can be modified for dividends on the underlying assets.

			Short Put	Long Put
Current Fair Market Value of the Underlying Investment [a]	$	10,000,000	Option #1	Option #2
Current Fair Market Value of the Trust Other Assets (cash)	$	250,000		
Total Fair Market Value of the Trust Assets	$	10,250,000	Sell at	Buy at 10% Below
			$ 10,000,000	$ 10,000,000
Standard Deviation [b]			20%	20%
T = Time to Expiration in Years [c]			9	9
S = Stock Price			$ 10,250,000	$ 10,250,000
R = Risk-Free Rate [d]			2.38%	2.38%
E = Exercise Price			$ 10,000,000	$ 9,000,000
D = Dividend Yield [e]			0%	0%
N(d1)			0.7575	0.8089
N(d2)			0.5391	0.6079
N(-d1)			0.2425	0.1911
N(-d2)			0.4609	0.3921
d1			0.6982	0.8738
d2			0.0982	0.2738

Option Pricing Model Formula: P = Ee(-RT)N(-d2) - Se(-DT)N(-d1)

Put-Call Parity Equation: C = P - present value(E) + S

			Guarantor Equivalent Value	
Value of Selling a Put Option (obligation to buy) - Cash Inflow	+ $	1,234,325	$ 1,234,325	
Value of Buying a Put Option (right to sell) - Cash Outflow	- $	889,707		$ 889,707
Net Premium Received	$	344,619		
Percentage of the Total Cost of Selling an At-the-Money Put Option		*27.9%*	*100.0%*	*72.1%*

Value of the Bull Put Spread Position [rounded]	**$**	**345,000**	**3.45%**	**of Note Principal**

[a] The purchase by the trust of the securities of a private investment entity was transacted as of the valuation date at a determined fair market value of $10 million.

[b] Volatility is based on the portfolio volatility of the underlying securities (both cash and the private investment interest) held by the trust, as the volatility of the underlying assets of the trust will be the volatility of the trust.

[c] The estimated liquidation time horizon of nine years is based on the hypothetical assumptions that the note used to acquire the private investment interest is a nine-year note and the guaranty arrangement is consistent with the life of the note.

[d] Based on linear interpolation of the yields to maturity on 7-year Treasury bond and 10-year Treasury bond as of the valuation date.

[e] Since the trust is not anticipated to receive dividends from the private investment entity, the dividend yield variable is not applicable to the subject analysis.

Note: Simplifying assumptions have been made in this example for illustration purposes.

Weston Kirk is a vice president in our Atlanta practice office. Weston can be reached at (404) 475-2308 or wckirk@willamette.com.