

Financial Valuation *and* Litigation Expert

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Editor's Outlook

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In this issue, we continue our popular series on common mistakes in business valuation. This month, we take a look at errors sometimes found in calculating discount and capitalization rates.

Hats off to Carla Glass, who has tackled a topic often laden with confusion— use of “calculations,” including the similarities and differences among different sets of BV standards. Carla defines, examines and then compares calculations and the various terminology used within the Statement on Standards for Valuation Services 1 (SSVS-1) of the American Institute of Certified Public Accountants (AICPA), Uniform Standards of Professional Appraisal Practice (USPAP) of The Appraisal Foundation (2014-2015 edition), and BVS-I: General Requirements for Developing a Business Valuation (BVS-I) of the American Society of Appraisers (ASA).

Next up, Gil Matthews shows us why amortization must be excluded from normalized free cash flow in the Gordon Growth Model.

Two guest columnists join us in this issue. First, Robert Reilly helps our readers to understand the differences between an intangible asset valuation and an intangible asset damages analysis. Next, John Barrett delivers an examination of the *Kessler* (Delaware *Continued on next page*

Business Valuation Mistakes: How to Avoid Them, Part Two Discount and Capitalization Rates

In *FVLE* Issue 44, August/September 2013, we started a new series titled “Business Valuation Mistakes: How to Avoid Them.” We now continue this series based on some of the more prominent mistakes we see. We believe we have seen *almost* every kind of mistake in business valuation; however, there is always a new one that can be added! There are many mistakes that we see on a frequent basis. We call these *common* mistakes. We also see mistakes that are *uncommon*. Both can be deadly, and both can be hard to detect. That is the purpose of this article— to assist in the identification and avoidance of mistakes.

Before we get started here, let’s set some foundation by defining what a mistake is.

Mistake (*oxforddictionaries.com*)

- an act or judgment that is misguided or wrong
- something, especially a word, figure, or fact, which is not correct; an inaccuracy

Mistake (*merriam-webster.com*)

- a wrong judgment: misunderstanding
- a wrong action or statement proceeding from faulty judgment, inadequate knowledge, or inattention

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Analysis of the Kessler Valuation Metric

This analysis reviews the *Kessler* (Delaware MRI) valuation metric utilized to determine the value of pass-through entities. The issue of whether or not, as well as how business appraisers tax affect pass-through entities (PTEs), continues to be a source of debate among valuation professionals. Tax-affecting issues that started in the U.S. Tax Courts (*Gross*, *Heck*, *Adams*, *Wall*, *Dallas* and *Gallagher*) have now also become highly publicized at the shareholder dispute level (*Kessler*) and the family court level (*Bernier*, MA).

There has been considerable controversy over the past several years regarding the valuation of S corporations (and other pass-through tax entities). Much of the controversy deals with the issue of tax affecting such entities. S corporations (and other PTEs) do not pay income taxes on their corporate level earnings. Rather, income taxes are paid at the shareholder level, by the shareholders. This is in contrast to the situation of a C corporation, where income taxes are paid at the corporate level, and then again at the shareholder level, on any dividends paid to the shareholders by the corporation. A commonly accepted business valuation practice has been to tax affect the earnings of an S corporation by applying C corporation income tax rates to the earnings. However, a 1999 U.S. Tax Court Case (*Gross v. Commissioner*) held that tax affecting S corporation earnings was not correct. There have been five additional tax court cases upholding this position since the *Gross* case.

Several excellent valuation models have been developed by leading business appraisers. Models to develop a PTE premium have been developed by Chris Treharne, Chris Mercer, Roger Grabowski, Daniel Van Vleet and Nancy Fannon. There have also been numerous articles in professional

valuation publications. *Financial Valuation Applications and Models*, edited and co-authored by Jim Hitchner, has an excellent chapter on valuation of pass-through entities, written by Nancy Fannon. This chapter summarizes and analyzes the previously mentioned PTE valuation models. Michael A. Gregory has published a book entitled *Valuing Interest in S-Corps*. As a former Internal Revenue Service territory manager and now valuation consultant, Mike provides a unique IRS insider's perspective to the PTE issue. Eric Barr is currently writing a book entitled *Valuing Pass-Through Entities*. The book takes an in-depth look at the PTE issues and provides a Modified Delaware MRI Model (*Kessler*), which differs from the *Kessler* modification in this analysis. The book should be available through Wiley & Sons later this year. The book has a great deal of information beneficial to practitioners and is highly recommended, once available.

In a 2006 decision, *Delaware Open Radiology Associates v. Howard B. Kessler*, et al., 898 A.2d 290, involving a shareholder dispute case, the Delaware Chancery Court computed a reduced tax rate of 29.4 percent to tax affect the S corporation income. In this case, the vice chancellor utilized his own computational model to compute the S corporation effective tax rate of 29.4 percent, applied to Delaware Open Radiology Associates. It is interesting to note that the vice chancellor references the Chris Treharne PTE model as a "useful model and analysis." In the ongoing *Bernier v. Bernier* case, the Massachusetts Supreme Judicial Court, in 2007, remanded the case with orders for the trial court to adopt the metric employed in the *Kessler* case.

The *Kessler* metric provides us with another approach to determining and presenting a premium to a PTE



~ GUEST COLUMNIST ~

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valuation when warranted. It should be kept in mind that premiums are not necessarily appropriate in all cases. The actual PTE distributions play an important role in determining if such adjustment is proper. However, the *Kessler* metric, with modification, can be a useful and simpler way to compute a PTE premium in the family court and other contexts.

The following computations (see Exhibits 1-6, pp. 21-24) indicate an adjustment is required to the *Kessler* metric to derive a result consistent with the Treharne PTE model. Based on the following simplified assumptions, the following exhibits indicate the required adjustment and the effect such adjustment has in both the *Kessler* case and the *Bernier* case. Exhibit 4 indicates that the actual *Kessler* metric overstates the value of the subject PTE. The modified *Kessler* metric provides a result consistent with the Treharne model or by simply computing a premium adjustment as a percentage of

Continued on next page

expert TIP

The *Kessler* metric provides us with another approach to determining and presenting a premium to a PTE valuation when warranted.

the preliminary value of a business as if it were a C corporation. Exhibit 5 reflects the ramifications of applying the actual *Kessler* metric to the *Bernier* case and the corrected outcome after applying the modified *Kessler* metric.

Once again the computations indicate that blindly following the *Kessler* computations provides a higher result. Application of the modified *Kessler* metric in the *Bernier* case indicates an effective S corporate tax rate of 16.0 percent. Of course, this assumes 100 percent distributions. If the actual historical distributions were less than 100 percent or the cash flows that were available for actual distribution were less than one hundred percent, the effective S corporate tax rate would increase.

James Reto wrote an excellent article on this topic in the July 2011 *Business Valuation Update*.¹ He provides the following mathematical formulas for determining the effective corporate income tax rate to be applied to a PTE. Once again, the assumption is 100 percent distributions and the focus is solely on the benefit of distributions to a PTE equity holder.

$$\text{Str} = \text{Ctr} - ((1 - \text{Ctr}) * \text{Dtr})$$

Where:

Str = S corp effective tax rate

Ctr = C corp tax rate

Dtr = Dividend tax rate

The formula can be modified to also capture the difference (negative or positive) between corporate and individual tax rates as follows:

$$\text{Str} = (\text{Ctr} - ((1 - \text{Ctr}) * \text{Dtr})) - (\text{Ctr} - \text{Itr})$$

Where:

Str = S corp effective tax rate

Ctr = C corp income tax rate

Dtr = Dividend tax rate

Itr = Individual income tax rate

Continued on next page

EXHIBIT 1

Analysis of the *Kessler* Metric

Assumptions

- 1 - 100% distributions.
- 2 - Corporate and individual tax rates are approximately the same.
- 3 - Holding period is a long-term horizon, minimizing any impact on basis differential.
- 4 - Combined federal and state income tax rate 40%.
Combined federal and state dividend income tax rate 15%.
- 5 - After-tax cash flows and after-tax net income are the same.
- 6 - Capitalization rate of 18%.

	<u>C Corp.</u>	<u>S Corp.</u>
Pre-Tax Net Income	\$1,000	\$1,000
Corporate Taxes (40%)	<u><400></u>	<u>-0-</u>
Available Earnings	\$600	\$1,000
Individual Taxes (40%)		<u><400></u>
Dividend Taxes (15%)	<u><90></u>	<u>\$600</u>
	\$510	

S Corp. after-tax cash flow differential of \$90.

EXHIBIT 2

Simple Valuation

Trehanne Model

Capitalization of Additional Cash Flow

	<u>As if a C Corp.</u>
Pre-Tax Net Income	\$1,000
C Corp. Taxes (40%)	<u><400></u>
Available Earnings	600
Capitalization Rate	<u>÷ 18%</u>
Preliminary Estimated Value	<u>\$3,333</u>
S Corp. Adjustment	
Additional Cash Flow to the S Corp. Shareholder	\$90
Capitalization Rate	<u>÷ 18%</u>
S Corp. Adjustment	<u>\$500</u>
Preliminary Estimated Value	\$3,333
S Corp. Adjustment	<u>500</u>
Estimated Value of S Corp.	<u>\$3,833</u>

FINANCIAL VALUATION - Pass-Through Entities, continued

Applying Reto's first formula to the *Kessler* case provides the same result as the modified *Kessler* metric computed in Exhibit 4 of this analysis. The computations are as follows:

$$\begin{aligned}\text{Str} &= \text{Ctr} - ((1 - \text{Ctr}) \times \text{Dtr}) \\ \text{Str} &= .40 - ((1 - .40) \times .15) \\ \text{Str} &= .40 - (.60 \times .15) \\ \text{Str} &= .40 - .09 \\ \text{Str} &= 31\%\end{aligned}$$

Applying Reto's first formula to the *Bernier* case provides the same result as the modified *Kessler* metric computed in Exhibit 5 of this analysis. The computations are as follows:

$$\begin{aligned}\text{Str} &= \text{Ctr} - ((1 - \text{Ctr}) \times \text{Dtr}) \\ \text{Str} &= .40 - ((1 - .40) \times .40) \\ \text{Str} &= .40 - (.60 \times .40) \\ \text{Str} &= .40 - .24 \\ \text{Str} &= 16\%\end{aligned}$$

The next step in this analysis is to check the premium adjustment computed in Exhibit 3 to actual computations in the Treharne model. To accomplish this, an example from Chris Treharne's article "S Corporation Valuations— The Simplified Treharne Model," published in *Business Appraisal Practice* 2009,² (see www.4avalue.com), was analyzed. To test the computations, certain adjustments have been made to the example in that article (see Exhibit 6).

It would seem that the starting point for Exhibit 4 (article) would be the net cash flow to equity (Line 13 of Exhibit 1) (article) rather than after-tax net income [Line 7 of Exhibit 1) (article), Line 25 of Exhibit 4, (article)]. These amounts represent the distributions the corporation can actually make, assuming 100 percent distributions. By eliminating the Exhibit 3 (article) variable (difference between corporate and individual tax rates and assuming these rates are identical), we can focus on the differential attributable solely to the dividend tax avoidance of the S corporation. Exhibit 4 of the article was adjusted, as shown on the page 24.

Continued on next page

EXHIBIT 3

Premium Adjustment Applied to the S Corp.

Additional Cash Flow to the S. Corp. Shareholder	\$90	= 0.15%
Divided by After-Tax C Corp. Net Income	600	
Preliminary Estimated Value (From Exhibit 2)	\$3,333	
S Corp. Premium (1 + 15%)	x 1.15%	
Estimated Value of S Corp.	<u>\$3,833</u>	

EXHIBIT 4

Kessler Approach

	C Corp.	S. Corp
Pre-Tax Net Income	\$1,000	\$1,000
Corp. Taxes (40%)	<400>	-0-
Available Earnings	\$600	\$1,000
Personal Tax Rate (40%)		<400>
Dividend Tax Rate (15%)	<90>	
Available After Dividends	\$510	\$600
Gross-up [\$90 ÷ (1-15%)]		106
Total		<u>\$706</u>
Kessler Estimated Effective Tax Rate (\$1,000 - \$706 = 294 ÷ \$1,000 = 29.4%)		
Pre-Tax Net Income	\$1,000	
Adjusted Corp. Tax Rate (29.4%)	<294>	
Available After Dividends	\$706	
Capitalization Rate	÷ 18%	
Estimated Value of S Corp. (Per Kessler)	<u>\$3,922</u>	

Modified Kessler Approach

Tax Rate \$600 + 90 = \$690 (\$1,000 - \$690 = \$310 ÷ 1,000 = 31%)	
Pre-Tax Net Income	\$1,000
Adjusted Corp. Tax Rate (31.0%)	<310>
Available After Dividends	\$690
Capitalization Rate	÷ 18%
Estimated Value of S Corp.	<u>\$3,833</u>

Please note that the adjusted *Kessler* effective corporate tax rate provides an estimated S corporation value that is consistent with the estimated value provided in Exhibits 2 and 3. Application of the actual *Kessler* effective corporate tax rate overstates the estimated value.

When the only variable is hypothetical dividend taxes paid, by a C corporation, and the corporation is making 100 percent distributions, the S corporation value should always be equal to one plus the combined effective dividend tax rate times the C corporation value. This would indicate that the after-tax cash flows are the starting point in Exhibit 4 (article) of the Treharne model computation.

Once these adjustments are made, the capitalized cash flows in the Treharne model, or a direct premium adjustment, or an adjustment to the effective S corporation tax rate, as computed, in the *Kessler* case (modified), provide the same result. As additional factors are introduced into the process, such as different tax rates for corporations and individuals, distributions of less than 100 percent, or a higher risk assessment of maintaining the S corporation distributions, all three applications of computing the PTE premium will remain consistent, as long as the proper adjustments are made to each application on a consistent basis.

CONCLUSION

The *Kessler* metric is beneficial to the body of knowledge being developed by the valuation community regarding the valuation of PTEs. The *Kessler* metric really presents a simplified application and presentation of the Treharne model. This can be helpful in the context of a family court case, where the time and opportunity to explain PTE premium adjustments can be limited. The preceding analysis indicates that the actual *Kessler* metric results in an overstatement of premium differential of PTEs compared to C corporations. However, the modified *Kessler* metric, as computed in this analysis, provides a more appropriate outcome. This is increasingly important as the *Kessler* computations tend to be utilized by the family courts, such as those in Massachusetts. [Exhibit 6](#) on next page

¹ Reto, James, "Four Potential Problems When Calculating the S Corps Benefit," *Business Valuation Update*, July 2011, pp.14-17.

² Treharne, Chris, "S Corporation Valuations— The Simplified Treharne Model," *Business Appraisal Practice* 2009, pp. 27-32. (see www.4avalue.com).

EXHIBIT 5

Application of the *Kessler* Metric to *Bernier*

	C Corp.	S. Corp
Pre-Tax Net Income	\$1,000	\$1,000
Corp. Taxes (40%)	<400>	-0-
Available Earnings	\$600	\$1,000
Individual Taxes (40%)		<400>
Dividend Taxes (40%)	<240>	
	\$360	\$600
Gross-up [\$240 ÷ (1 - 40%)]		400
Total		\$1,000
Kessler Estimated Effective Tax Rate (\$1,000 - \$1,000 = 0)		
Pre-Tax Net Income		\$1,000
Adjusted Corp. Tax Rate (0%)		-0-
Available After Dividends		\$1,000
Capitalization Rate		÷ 18%
Estimated Value of S Corp.		\$5,556

Modified *Kessler* Approach to *Bernier*

Tax Rate \$600 ÷ \$240 = \$840 (\$1,000 - \$840 = \$160 ÷ 1,000 = 16%)	
Pre-Tax Net Income	\$1,000
16% Adjusted Tax Rate	<160>
	840
Capitalization Rate	÷ 18%
	\$4,666

Proof

Capitalization of Earnings

Pre-Tax Net Income	\$1,000	
Less Corp. Tax Rate (40%)	<400>	
Available Earnings	600	
Capitalization Rate	÷ 18%	
	3,333	3,333
Additional Cash Flow	240	
	÷ 18%	
	\$1,333	1,333
Estimated Value of S Corp.		\$4,666

Premium Adjustment

Estimated Value	\$3,333
S Corp. Premium	x 1.40
Estimated Value of S Corp.	\$4,666

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FINANCIAL VALUATION - Pass-Through Entities, continued

EXHIBIT 6

Adjusted Exhibit 4 (Treharne Article)

	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>
Equivalent C Corp. Dividends	\$387,624	\$262,830	\$<119,072>	\$183,140
Dividend State Tax (Personal) 7.8%	30,235	20,501	<9,287>	14,285
Dividend Federal Tax (Personal) 15.0%	<u>53,608</u>	<u>36,349</u>	<u><16,468></u>	<u>25,328</u>
Dividend Tax Avoidance	\$83,843	\$56,850	\$<25,755>	\$39,613
Terminal Value				<u>204,007</u>
Total S Corp. Tax Benefit (Liability)	\$83,843	\$56,850	\$<25,755>	\$243,620
Present Value	\$68,164	\$37,578	\$<13,841>	\$106,438
Total				<u>\$198,339</u>

Resultant S Corp. Value

Exhibit 1 (article) Value	916,963
Exhibit 4 (article) Value	<u>198,339</u>
S Corp. Value	<u>\$1,115,302</u>

Proof of Analysis

Value from Exhibit 1 (article)	\$916,963
Multiplied by Effective Combined Federal & State Dividend Tax Rate + 1	<u>1.2163</u>
S Corp. Value	<u>\$1,115,302</u>

Effective Dividend Tax Rate	100.00%
Less: Dividend State Tax Rate	<u><7.8></u>
	92.20
Less: Dividend Federal Tax Rate (15% x 92.20)	<u>13.83</u>
	<u>78.37</u>
	100.00%
Less:	<u><78.37></u>
Effective Combined Federal & State Dividend Tax Rate	<u>21.63</u>