Delaware Open MRI and the Van Vleet Model

Daniel R. Van Vleet, ASA

On April 26, 2006, the Court of Chancery of the State of Delaware (the “Court”) rendered a decision in the matter styled Delaware Open MRI Radiology Associates, P.A. v. Howard B. Kessler, et al. (the “decision”). Although this decision is nine years old, its relevance has recently become more of an issue due to an emerging school of thought that suggests the decision provides a model that may be used to value S corporation equity. In this article, I will describe why the valuation calculations provided in the decision (the “decision calculations”) have merit in limited circumstances. I will also address why the decision calculations are generally inadequate for the purpose of valuing S corporation equity in most circumstances. In doing so, I will demonstrate why the decision calculations are not a valuation model that addresses the potentially diverse facts and circumstances that typically confront valuation analysts when valuing S corporation equity. I will also demonstrate the fact that the decision calculations are a limited mathematical reworking of the S Corporation Economic Adjustment Model (“SEAM” or the “Van Vleet Model”) presented to the valuation profession in 2002.

Introduction

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In this article, I will describe why the valuation calculations provided in the decision (the “decision calculations”) have merit in limited circumstances. I will also address why the decision calculations are generally inadequate for the purpose of valuing S corporation equity in most circumstances. In doing so, I will demonstrate why the decision calculations are not a valuation model that addresses the potentially diverse facts and circumstances that typically confront valuation analysts when valuing S corporation equity. I will also demonstrate the fact that the decision calculations are a limited mathematical reworking of the S Corporation Economic Adjustment Model (“SEAM” or the “Van Vleet Model”) presented to the valuation profession in 2002.

Relevant Tax Attributes

When addressing the valuation aspects of the decision, it is important to have a general understanding of the following tax differences among S corporations, C corporations, and their respective shareholders:

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• C corporations are subject to entity-level income taxation at state and federal C corporation tax rates.
• S corporations are not subject to entity-level federal corporate income taxation. However, certain states assess entity-level income taxation on S corporations at state corporate tax rates.
• S corporation shareholders recognize their pro-rata share of S corporation income on their personal income tax returns. Accordingly, these earnings are subject to shareholder-level federal and state income taxation at ordinary income tax rates.
• Dividends paid by C corporations to their shareholders are subject to shareholder-level federal and state taxation at C corporation dividend tax rates.
• Distributions (i.e., dividends) paid by S corporations to their shareholders are not subject to shareholder-level taxation to the extent of accumulated earnings and profits.
• The undistributed income of a C corporation does not affect the tax basis of its equity securities.
• The undistributed income of an S corporation may either be distributed to its shareholders tax-free—to the extent of accumulated earnings and profits—or will serve to increase the tax basis of its equity securities and thereby permit shareholders to reduce or avoid capital gains taxes upon the sale of such securities.

As discussed above, there are material differences among the tax attributes of S corporations, C corporations, and their respective shareholders. These differences result in differing investment rates of return for S corporation and C corporation shareholders. These differing investment rates of return distort the valuation process when empirical data derived from transactions involving the equity securities of C corporations (e.g., discount rates, market multiples, etc.) are used to value S corporation equity interests. These distortions occur because, according to the efficient market hypothesis, the tax attributes of C corporations and their respective shareholders are reflected in market equity security pricing.

Efficient Market Hypothesis

The efficient market hypothesis (EMH)\(^3\)—a market theory developed by Eugene F. Fama, PhD\(^4\)—asserts that security prices, in a liquid capital market, reflect all available information. Accordingly, the equity security prices of publicly traded companies reflect entity-level and shareholder-level tax attributes of C corporations and their shareholders. Since the entity-level and shareholder-level tax attributes of C corporations are materially different than S corporations, the use of transactional data involving equity securities of publicly traded C corporations to value S corporation equity interests may produce distorted and unreliable indications of value.

This is not to suggest that transactional data derived from publicly traded C corporations are not useful in the valuation of S corporation equity securities. In fact, these data are useful. However, when this type of data is used to value an S corporation equity interest, it is necessary to apply a valuation adjustment in order to conclude reliable indications of value. As will be demonstrated, the decision calculations in the matter styled Delaware Open MRI Radiology Associates, P.A. v. Howard B. Kessler, et al. provide an adjustment that may be useful in limited circumstances. However, these limitations render the application of the decision calculations problematic in most situations involving the valuation of S corporation equity.

Decision Calculations

I will not provide a description of the facts, circumstances, and background of the decision considered herein. That information is publicly available and has been discussed at length in other articles. I will focus on the fact that the Court conducted a valuation adjustment to reflect certain tax differences among C corporations, S corporations, and their respective shareholders. This adjustment came in the form of a modified corporate tax rate used to tax-affect the entity-level earnings of the subject S corporation. The Court lowered the entity-level tax rate from a 40% C corporation income tax rate to a 29.4% adjusted tax rate. The Court reasoned that this lower tax rate—when combined with a 15% C corporation dividend tax rate—would result in a net shareholder return\(^5\) equivalent to the net shareholder return of an S corporation shareholder. Table 1 demonstrates the decision calculations.

As demonstrated in Table 1, the application of the 29.4% corporate tax rate (row 2, column C)—when combined with an assumed 15% C corporation dividend tax rate (row 4, column C)—results in a net shareholder return of $60.00 (row 6, column C). This return is equivalent to the $60.00 net shareholder return of an S shareholder (row 6, column B) after application of

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\(^3\)The efficient market hypothesis is a market theory that evolved from a 1960’s dissertation by Eugene F. Fama, PhD. It is a foundational element of modern business valuation theory.

\(^4\)Professor Fama is a Nobel laureate in economics and a professor of finance at the University of Chicago. He is widely recognized as the “father of modern finance” and is known for his work on portfolio theory and asset pricing, both theoretical and empirical.

\(^5\)Net shareholder return is defined as the investment return to the shareholder after the application of entity-level corporate income taxes and shareholder-level dividend and capital gains taxes.
a single layer of taxation at the ordinary income tax rate of 40% (row 5, column B).

By lowering the corporate tax rate from 40% to 29.4%, the Court was attempting to capture the value difference attributable to the differing tax attributes of S corporations, C corporations, and their respective shareholders. In making this adjustment, the Court focused on the fact that C corporations are taxed at the entity level and again at the shareholder level when shareholders receive dividends. This C corporation “double taxation” treatment is different from S corporations, which are generally not subject to entity-level taxation. However, S corporation shareholders do report their pro rata share of S corporation earnings on their personal tax return and are therefore subject to taxation at ordinary income tax rates.

The Court was silent on the fact that the undistributed income of an S corporation either may be distributed tax-free or will serve to increase the tax basis of its shares. This treatment allows S corporation shareholders to mitigate—or avoid altogether—dividend taxation upon distribution or capital gains taxation upon the sale of their stock. This treatment is different from C corporations, for which dividends are not tax free, and undistributed income does not affect the tax basis of its shares. Accordingly, there is no avoidance of dividend and/or capital gains taxation attributable to the undistributed earnings of a C corporation. As will be addressed later in this article, the failure of the Court to address this issue results in one of the primary limitations of the decision calculations.

As demonstrated in Table 2, the objective of the decision calculations was to determine the appropriate tax rate to use to tax-affect the earnings of the subject S corporation. This measurement of tax-affect ed earnings was then converted into an indication of S corporation equity value using a C corporation capitalization rate or market multiple. Table 2 provides an example of these calculations.

### Table 1
Decision Calculations

<table>
<thead>
<tr>
<th></th>
<th>(A)</th>
<th>(B)</th>
<th>(C)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Earnings Before Taxes</td>
<td>$100.00</td>
<td>$100.00</td>
<td>$100.00</td>
</tr>
<tr>
<td>Corporate Tax Rate</td>
<td>40.0%</td>
<td>0.0%</td>
<td>29.4%</td>
</tr>
<tr>
<td>Adjusted Net Income</td>
<td>$60.00</td>
<td>$100.00</td>
<td>$70.60</td>
</tr>
<tr>
<td>Dividend Tax Rate</td>
<td>15.0%</td>
<td>–</td>
<td>15.0%</td>
</tr>
<tr>
<td>Ordinary Income Tax Rate</td>
<td>–</td>
<td>40.0%</td>
<td>–</td>
</tr>
<tr>
<td>Net Shareholder Return</td>
<td>$51.00</td>
<td>$60.00</td>
<td>$60.00</td>
</tr>
</tbody>
</table>

### Table 2
Capitalization of Adjusted Net Income

<table>
<thead>
<tr>
<th></th>
<th>(A)</th>
<th>(B)</th>
</tr>
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<td>$70.60</td>
</tr>
<tr>
<td>Capitalization Rate</td>
<td>20.0%</td>
<td>20.0%</td>
</tr>
<tr>
<td>Value of Equity</td>
<td>$300.00</td>
<td>$353.00</td>
</tr>
<tr>
<td>Net Shareholder Return</td>
<td>$51.00</td>
<td>$60.00</td>
</tr>
<tr>
<td>Value of Equity</td>
<td>$300.00</td>
<td>$353.00</td>
</tr>
<tr>
<td>Shareholder Investment Return</td>
<td>17.0%</td>
<td>17.0%</td>
</tr>
</tbody>
</table>

* See Table 1 for net shareholder return calculation.

As demonstrated in Table 2, corporate tax rates of 40% and 29.4% (row 2) are applied to earnings before taxes (row 1) to quantify the adjusted net income (row 3) of the C corporation and S corporation, respectively. A C corporation capitalization rate of 20% (row 4) is then applied to these tax-affect ed measurements of income to provide C corporation and S corporation values of equity at $300.00 and $353.00 (row 5), respectively. We can test the reasonableness of each indication of value by dividing the net shareholder return (row 6) by the value of equity (row 7) in order to calculate the shareholder investment return (row 8).

As demonstrated in row 8, the shareholder investment returns for both the C corporation and S corporation are identical at 17%. The identical shareholder investment return indicates that the 29.4% tax rate used in the decision calculations is a tax-equivalent rate under the limiting conditions reflected in the decision. However, the notion that the decision calculations are a valuation model that may be correctly employed under a variety of circumstances is incorrect. The decision calculations only address the S corporation shareholder avoidance of dividend taxation. Accordingly, these calculations are appropriate only if one or both of the following limiting conditions are true:

- The C corporations used to value the subject S corporation pay 100% of net income to their shareholders in the form of dividends.
- The C corporation tax rates on dividends and capital gains are identical.

In addition to one or both of these limiting conditions, the decision calculations are also subject to the following limitations:

6A tax-equivalent rate is an S corporation tax rate that equates the investment return of the S corporation and C corporation shareholder.
The decision calculations should only be used to estimate the tax rate to apply to the equity earnings (e.g., earnings before taxes [EBT]) of the subject S corporation. Using the decision calculations to quantify a tax rate to apply to the debt-free earnings (e.g., earnings before interest and taxes [EBIT]) of the subject S corporation will provide an unreliable indication of value. Consequently, differences in the capital structures of the subject S corporation and the C corporations used in the analysis may not be properly addressed. Therefore, the decision calculations should only be used when the capital structures (i.e., debt/equity ratios) of the subject S corporation and C corporations are identical.

The decision calculations do not provide a means to quantify the adjusted pretax earnings of the subject S corporation. Therefore, the decision calculations should not be used if there is a need to capitalize the pretax earnings (e.g., EBT, EBIT, etc.) of the subject S corporation.

In the following sections of this article, I will address why the limiting conditions described here render the application of the decision calculations problematic when valuing an S corporation equity interest.

Dividends and Capital Appreciation

The following Formula 1 is the fundamental equation for quantifying the investment rate of return of equity securities:

**Formula 1**

\[ k_1 = \frac{(S_1 - S_0) + d_1}{S_0}, \]

where:

- \( k_1 \) = equity investment rate of return during period 1,
- \( S_1 \) = stock price at end of period 1,
- \( S_0 \) = stock price at beginning of period 1,
- \( d_1 \) = dividends paid during period 1.

Formula 1 is based on the following two components: (a) capital appreciation \((S_1 - S_0)\) and (b) dividends \(d_1\). Accordingly, the components of Formula 1 reflect the following entity-level and shareholder-level tax attributes: (a) C corporations are subject to entity-level income taxes that affect net income, (b) net income is the conceptual source of dividends and capital appreciation of equity, and (c) dividends and capital appreciation of equity of C corporations are subject to taxation at the shareholder level. Accordingly, the equity investment rates of return and stock prices of publicly traded equity securities reflect C corporation entity-level income taxation as well as C corporation shareholder-level dividend and capital gains taxation.

Because of the entity-level and shareholder-level tax attributes of C corporations, the dividend payout ratio will affect the net shareholder return when the tax rates on dividends and capital gains are different. Table 3 demonstrates the impact of these tax attributes on the net shareholder return of C corporation shareholders under three different scenarios.

As demonstrated in column A of Table 3, if a C corporation pays 100% of its net income to its shareholders in the form of dividends, any difference between the dividend and capital gains tax rates will not affect the net shareholder return at $51.00 (row 11, column A). This is true because 100% of net income is paid to shareholders in the form of dividends, and none is retained in the business, resulting in net capital appreciation of equity.

In column B of Table 3, the dividend payout ratio is 50% (row 4, column B), and the dividend and capital gains tax rates are equal to each other at 15% (row 6 and row 9 of column B). Once again, the net shareholder return (row 11, column B) is $51.00. This is true because 100% of net income is paid to shareholders in the form of dividends, and none is retained in the business, resulting in net capital appreciation of equity.

A difference in net shareholder return occurs when the dividend payout ratio is less than 100% and the dividend and capital gains tax rates are different. In column C of
Table 3, the dividend payout ratio is 50% (row 4, column C) and the dividend and capital gains tax rates are 15% and 30% (row 6 and row 9 of column C), respectively. As demonstrated in column C, the interplay of the 50% dividend payout ratio and the differing dividend and capital gains tax rates results in a net shareholder return of $46.50 (row 11, column C). This difference occurs despite the fact that the corporate income tax rate and the dividend tax rate remain at 40% and 15% for each of the three scenarios. The decision calculations considered herein only address taxation of dividends. Consequently, they fail to reflect the differences in the net shareholder return that occur when the dividend and capital gains tax rates are different. This is one of the principal deficiencies of the decision calculations.

As demonstrated in column C, the interplay of the 50% dividend payout ratio and the differing dividend and capital gains tax rates results in a net shareholder return of $46.50 (row 11, column C). This difference occurs despite the fact that the corporate income tax rate and the dividend tax rate remain at 40% and 15% for each of the three scenarios. The decision calculations considered herein only address taxation of dividends. Consequently, they fail to reflect the differences in the net shareholder return that occur when the dividend and capital gains tax rates are different. This is one of the principal deficiencies of the decision calculations.

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to the earnings available to C corporation shareholders after application of an appropriate S corporation adjusted tax rate, EBTs × (1 – Ts), and after subtraction of C corporation shareholder-level taxes on both dividends, EBTs × (1 – Ts) × Dp × Td, and capital appreciation of equity, EBTs × (1 – Ts) × (1 – Dp) × Tcg. Formula 2 may be simplified into the following Formula 3:

**Formula 3**

\[
(1 - Ti) = (1 - Ts) - (1 - Ts)DpTd - (1 - Ts)(1 - Dp)Tcg.
\]

The objective of Formula 3 is to calculate the S corporation adjusted tax rate (Ts) by inputting all other components other than the adjusted tax rate into the formula and then solving for the adjusted tax rate. Formula 4 is an algebraically simplified version of Formula 3. Accordingly, Formula 4 provides a means by which to calculate the S corporation adjusted tax rate (Ts) by inputting all other components other than the adjusted tax rate into the formula and then solving for the adjusted tax rate. Formula 4 may be simplified into the following Formula 3:

**Formula 4**

\[
Ts = \frac{(Ti - DpTd - Tcg + DpTcg)}{(1 - DpTd - Tcg + DpTcg)}.
\]

When using Formula 4, all components other than the S corporation adjusted tax rate are identified and selected based on observable data. For example, the ordinary income tax rate (Ti) may be estimated based on the combined effective state and federal ordinary income tax rates for the state of incorporation of the subject S corporation. The publicly traded C corporations used in the analysis may be used to estimate the appropriate dividend payout ratio (Dp). The C corporation dividend tax rate (Td) and capital gains tax rate (Tcg) may be estimated using the combined effective federal and state tax rates or the actual tax rates experienced by investors on these forms of investment return.

To demonstrate the proper application of Formula 4, I have selected the following components, which are consistent with the components used in the decision calculations:

- Ordinary income tax rate (Ti) = 40%.
- Dividend payout ratio (Dp) = 50%.
- Dividend tax rate (Td) = 15%.
- Capital gains tax rate (Tcg) = 15%.

The components listed here produce the following results.

\[
Ts = \frac{[40\% - (100\% \times 15\%) - 15\% + (100\% \times 15\%)]}{[1 - (100\% \times 15\%) - 15\% + (100\% \times 15\%)]} = 29.4\%.
\]

The above application of Formula 4 produces the same 29.4% S corporation adjusted tax rate identified in the decision calculations. Formula 4 will provide a tax-equivalent rate so long as one or both of the following assumptions are true: (a) The C corporations used in the analysis have a 100% dividend payout ratio, and/or (b) the dividend and capital gains tax rates are identical.

When the dividend and capital gains tax rates are different, and the dividend payout ratio is less than 100%, the decision calculations will not produce the correct tax rate to use in the analysis. To demonstrate this, I have selected the following components to use in Formula 4.

- Ordinary income tax rate (Ti) = 40%.
- Dividend payout ratio (Dp) = 50%.
- Dividend tax rate (Td) = 15%.
- Capital gains tax rate (Tcg) = 30%.

These components produce the following results.

\[
Ts = \frac{[40\% - (50\% \times 15\%) - 30\% + (50\% \times 30\%)]}{[1 - (50\% \times 15\%) - 30\% + (50\% \times 30\%)]} = 22.6\%.
\]

As demonstrated here and in Table 4, the proper S corporation adjusted tax rate is 22.6% and not the 29.4% suggested by the decision calculations. Formula 4 demonstrates the impact on the S corporation adjusted tax rate when the dividend and capital gains tax rates are different and the dividend payout ratio is less than 100%.

### Table 5
Guideline Publicly Traded C Corporation

<table>
<thead>
<tr>
<th>C Corporation</th>
<th>(A) Principal</th>
<th>(B) Rates of Return</th>
<th>(C) Tax Adjusted Rates</th>
<th>(D) Percent of Capital Structure</th>
<th>(E) Weighted Averages</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1) Debt Capital</td>
<td>$300.00</td>
<td>10.0%</td>
<td>6.0%</td>
<td>50.0%</td>
<td>3.0%</td>
</tr>
<tr>
<td>(2) Equity Capital</td>
<td>$300.00</td>
<td>20.0%</td>
<td>20.0%</td>
<td>50.0%</td>
<td>10.0%</td>
</tr>
<tr>
<td>(3) Weighted Average Cost of Capital (WACC)</td>
<td></td>
<td></td>
<td></td>
<td>13.0%</td>
<td></td>
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</table>
**Decision Calculations and Debt-Free Earnings**

Formula 4 should only be used to estimate the S corporation adjusted tax rate to apply to the equity earnings (e.g., EBT) of the subject S corporation. Using Formula 4 to quantify the tax rate to apply to the debt-free earnings (e.g., EBIT) of the subject S corporation will result in unreliable indications of value. Table 5 and Table 6 demonstrate this issue.

Table 5 provides example information of a hypothetical guideline C corporation used to value the subject S corporation. This company reports market values of debt capital and equity capital at $300 each (column A). The required rates of return for debt capital and equity capital are 10% and 20% (column B), respectively. Since interest expense is a tax-deductible expense, the 10% interest rate is tax-affected at the 40% C corporation tax rate to arrive at the tax-affected interest rate of 6% (row 1, column C). The tax-adjusted rates (column C) are then multiplied by their representative weights of debt and equity capital in the assumed capital structure (column D). The resulting weighted averages (column E) are summed to arrive at the weighted average cost of capital (WACC) of 13% (row 3, column E).

Table 6 illustrates the application of the equity capitalization rate and the WACC capitalization rate to the equity and debt-free earnings of the subject S corporation and C corporation, respectively. For purposes of this example, I have assumed a no-growth scenario. Consequently, the equity rate of return of 20% and the WACC of 13% also serve as capitalization rates used to convert the equity and debt-free earnings into their respective indications of value.

Rows 1 through 7 of Table 6 demonstrate the capitalization of an equity measurement of earnings, net income (row 5), using the equity capitalization rate of 20% (row 6). The C corporation corporate tax rate of 40% (row 4, column A) and S corporation adjusted tax rate of 29.4% (row 4, column B) are based on the components used in the decision calculations considered herein. The resulting indications of value of equity for the C corporation and S corporation are $300 (row 7, column A) and $353.00 (row 7, column B), respectively.

Rows 8 through 14 demonstrate the capitalization of a debt-free measurement of earnings, debt free net income (row 10), by the WACC capitalization rate of 13% (row 11). In order to calculate debt-free net income, the EBIT (row 8) is tax-affected at the C corporation corporate tax rate of 40% and the S corporation adjusted tax rate of 29.4% (row 9). The resulting debt-free net income (row 10) is capitalized using the WACC capitalization rate of 13% (row 11) to arrive at the market value of invested capital for the C corporation and S corporation at $600 and $706.20 (row 12), respectively.

When the $300 value of interest-bearing debt (row 13) is subtracted from the market value of invested capital, the resulting value of equity (row 14) should be identical to the value of equity calculated on an equity basis (row 7). As demonstrated in Table 6, the C corporation value of equity is identical in rows 7 and 14 of column A. However, the S corporation value of equity in row 14, column B is different from the value of equity in row 7, column B. This difference demonstrates that the decision calculations do not provide a reliable means to capitalize the debt-free earnings of an S Corporation.

A comprehensive treatment of this issue is beyond the scope of this article; however, a simplified explanation asserts that shareholder-level tax differences between S corporations and C corporations are attributable to equity capital and not debt capital. Consequently, the application of the S corporation adjusted tax rate to a debt-free measurement of earnings will produce unreliable indications of S corporation equity value. This value distortion is not corrected by using the S corporation adjusted tax rate to tax-affect the interest rate within the WACC calculation. That type of calculation would only serve to distort the WACC and further distort the indication of S corporation equity value. A potential solution would involve an adjustment to the S Corporation adjusted tax rate based on the capital structures of the publicly traded companies used in the determination of the WACC. As mentioned, a comprehensive treatment of that issue is beyond the scope of this paper and will be addressed in a future article.
Decision Calculations and the Van Vleet Model

Although the two concepts are mathematically related, the Van Vleet Model differs from the decision calculations in both calculation and application. In application, the Van Vleet Model is used to adjust the C corporation equivalent value of equity of the subject S corporation to a tax-equivalent S corporation equity value. As such, the Van Vleet Model may be used to adjust the C corporation equivalent equity values derived from a variety of valuation approaches, including the income approach, market approach, and asset approach. In addition, the Van Vleet Model may be used in situations where the value of equity is derived from debt-free and/or pretax earnings analysis.

The decision calculations considered herein are only able to calculate the S corporation adjusted tax rate used to tax-affect the equity earnings of an S corporation under certain limiting conditions. These limitations make the use of the decision calculations problematic in most situations when conducting the valuation of S corporation equity. The Van Vleet Model is not subject to these same limitations.

As mentioned in the opening paragraphs of this article, the decision calculations are essentially a limited mathematical reworking of the Van Vleet Model. In fact, it can be mathematically demonstrated that the decision calculations and the Van Vleet Model will produce identical valuation results under the limiting conditions of the decision calculations.

The following is the Van Vleet Model:

**Van Vleet Model**

\[
\text{SEAM} = 1 + \frac{(T_c + T_{cg} - T_i - T_c T_{cg} + D_p T_d - D_p T_{cg} - D_p T_c T_d + D_p T_c T_{cg})}{(1 - T_c - T_{cg} + T_c T_{cg} - D_p T_d + D_p T_{cg} - D_p T_c T_d - D_p T_c T_{cg})}
\]

Using the following components derived from the decision calculations, the Van Vleet Model concludes a SEAM of 1.1765.

- Ordinary income tax rate (\(T_i\)) = 40%.
- C corporation tax rate (\(T_c\)) = 40%.
- Dividend payout ratio (\(D_p\)) = 100%.
- Dividend tax rate (\(T_{d}\)) = 15%.
- Capital gains tax rate (\(T_{cg}\)) = 15%.

Formula 5 demonstrates the mathematical relationship of the Van Vleet Model and the decision calculations:

**Formula 5**

\[
\text{SEAM} = \frac{(1 - T_s)}{(1 - T_c)}
\]

Formula 5 is based on a derivation of the following equation:

\[
\text{EBT} \times (1 - T_c) \times \text{SEAM} = \text{EBT} \times (1 - T_s).
\]

Using the components assumed in the decision calculations in the derivation of Formula 5 provided above yields the following results:

\[
\text{EBT} \times (1 - 40\%) \times 1.1765 = \text{EBT} \times (1 - 29.4\%).
\]

\[
\$100 \times (1 - 40\%) \times 1.1765 = \$100 \times (1 - 29.4\%) = 70.60.
\]

The Van Vleet Model and decision calculations will produce identical valuation results so long as the limitations on the use of the decision calculations described in this article are followed, and Formula 4 is used in the determination of the S corporation adjusted tax rate.

Summary and Conclusion

I applaud the Court for their insight and awareness of the valuation differences attributable to the tax characteristics of S corporations, C corporations, and their respective shareholders. The decision calculations quantify a tax-equivalent rate under the limitations described in this article. However, the limitations on the use of the decision calculations are significant and make the application of these calculations problematic in real-world situations. Failure to recognize and properly address these limitations may result in incorrect and unreliable indications of S corporation equity value.

If valuation analysts wish to use the decision calculations to quantify a tax-equivalent rate, I recommend the use of Formula 4 as provided in this article. Formula 4 will provide a tax-equivalent S corporation adjusted tax rate to use in the analysis even if the tax rates on dividends and capital gains are different and the dividend payout ratio of the C corporations used in the analysis is less than 100%. In addition, if the valuation of the subject S corporation requires a debt-free or pretax earnings analysis, I recommend avoidance of the decision calculations and consideration of an alternative S corporation valuation model.