

THE VALUATION OF S CORPORATION STOCK: THE EQUITY ADJUSTMENT MULTIPLE

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INTRODUCTION

Recently, there has been much controversy regarding the business valuation of Subchapter S closely held corporations in the legal, taxation, estate planning, and valuation communities. This controversy has arisen from several recent U.S. Tax Court decisions¹ including *Gross v. Commissioner*,² *Heck v. Commissioner*,³ and *Adams v. Commissioner*.⁴

In this controversy, most commentators have primarily focused on the differences in legal attributes, cash flows, and profit distributions of C corporations versus S corporations. While these are important considerations, the current discussion has failed to address (1) the economic characteristics of investment rates of returns of publicly traded C corporations and (2) whether these rate of return characteristics match well with the economic benefits derived by S corporation shareholders.

This discussion will (1) demonstrate the differing economic benefits attributable to the income tax treatment of S corporation shareholders as opposed to C corporation shareholders⁵ and (2) provide a mathematical framework to adjust the indicated equity value of an S corporation⁶ in order to account for these economic differences.

PREAMBLE

First, the value of a business enterprise primarily depends on its (1) operational (e.g., management, workforce, production processes), (2) financial (e.g., revenue growth, earnings volatility, profit margins), (3) macro-economic (e.g., U.S. and regional economic conditions), and (4) micro-economic (e.g., cost of capital, industry conditions) characteristics. However, recent research⁷ has demonstrated that the election to be treated as a C corporation or as an S corporation for income tax purposes may have an impact on the value of a business enterprise on a controlling ownership interest basis.

Second, it is possible that the income tax attributes of S corporations versus C corporations may result in value at the shareholder level.⁸ This is due to the following: (1) C corporations are subject to corporate income tax rates at the entity

level, (2) dividends from C corporations are subject to ordinary income tax rates at the shareholder level, (3) the undistributed income from an S corporation changes the income tax basis of the shareholders ownership interest, and (4) S corporation shareholders are required to recognize a pro rata share of the reported net income of the S corporation on their personal income tax returns. All other factors being equal, these differences may ultimately affect the economic value of S corporation shares when compared to otherwise identical C corporation shares.

“It is noteworthy that the analysis contained in this article is only applicable to the valuation of equity interests that lack ownership control (i.e., that are valued on a noncontrolling ownership interest basis).”

Third, let's consider the premise that capital markets are efficient (at least over the long term). Consequently, investment rates of return (and price/earnings multiples) of C corporations contemplate the income tax attributes discussed above. Based on this premise, there is a conceptual mismatch between (1) the empirical market-derived data (i.e., rates of return, price/earnings multiples, etc.) of publicly traded C corporations and (2) the economic characteristics of the earnings reported by closely held S corporations.

Fourth, analysts currently do not have the ability to specifically isolate and quantify value differences solely attributable to the income tax characteristics of S corporations versus C corporations in empirical studies of actual transactions. This is because of the nearly infinite variety of corporate transaction structures. This is true in both the public and private transaction markets. Consequently, valuation analysts need to develop a mathematical model that conceptually addresses the differences in economic benefit between S corporation and C corporation shareholders.

This discussion will demonstrate the conceptual mismatch between (1) the economic characteristics of the empirical market data of publicly traded C corporations and (2) the economic characteristics of the earnings of S corporations. Also, a mathematical model that may be used to adjust the indicated value of equity of an S corporation—where such value is estimated using empirical studies and analyses of C corporations—is provided. It is noteworthy that the analysis contained in this article is only applicable to the valuation of equity interests that lack ownership control (i.e., that are valued on a noncontrolling ownership interest basis).

This discussion will demonstrate the conceptual mismatch between (1) the economic characteristics of the empirical market data of publicly traded C corporations and (2) the economic characteristics of the earnings of S corporations. Also, a mathematical model that may be used to adjust the indicated value of equity of an S corporation—where such value is estimated using empirical studies and analyses of C corporations—is provided. It is noteworthy that the analysis contained in this article is only applicable to the valuation of equity interests that lack ownership control (i.e., that are valued on a noncontrolling ownership interest basis).

BUSINESS VALUATION APPROACHES

One of the more interesting aspects of the current controversy is that it has focused on the income approach to business valuation. The impact that S corporation status has on both the market approach and asset-based approach to business valuation has been conspicuously absent from the discourse.

There is no conceptual reason why the valuation impact of S corporation tax status is limited to the income approach. If S corporation shares have an inherent economic benefit over C corporation shares, then this economic benefit should be reflected in all business valuation approaches.⁹

The market approach and the income approach share two fundamental valuation components: (1) a measurement of economic income and (2) a capitalization rate,¹⁰ present value discount rate,¹¹ or market-derived pricing multiple¹² (i.e., price/earnings pricing multiple). Most of the current discussion regarding S corporations has focused on the income tax attributes of the economic income and ignored the economic characteristics of the capitalization rates, present value discount rates, and market-derived pricing multiples (collectively referred to as “capitalization rates”).

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INVESTMENT RATES OF RETURN

In order to conceptually match the economic characteristics of economic income to the capitalization rates, it is necessary to understand how investment rates of return are calculated. The following formula presents the mathematical calculation of the equity rate of return.

$$k_1 = \frac{(S_1 - S_0) + d_1}{S_0}$$

where:

- k_1 = Rate of return on equity during period 1
- S_1 = Stock price at beginning of period 1
- S_0 = Stock price at end of period 1
- d_1 = Dividends paid during period 1

The above formula illustrates that investment rates of return on equity securities are derived from a combination of capital appreciation and dividend/distribution payments.

Empirical studies on equity rates of return provided in publications like *Stocks Bonds Bills and Inflation* or the *Cost of Capital Quarterly* (both published by Ibbotson Associates) are

based on the capital appreciation and dividends of publicly traded C corporations. Also, market-derived pricing multiples (i.e., price/earnings multiples based on EBITDA, net income, etc.) are conceptually the mathematical inverse of the investment rate of return.

For purposes of this discussion, let’s assume that equity investment rates of return on C corporations are derived entirely from net income. In other words, let’s assume that net income is either paid to the shareholder in the form of dividends or that the retained portion of net income results in the capital appreciation of the stockholder’s interest.¹³

Consequently, empirical studies of C corporation investment rates of return—at the shareholder level—inherently reflect the income tax treatment of (1) C corporations at the entity level and (2) capital appreciation and dividends of C corporation shares at the shareholder level.

As will be demonstrated below, there are significant differences in the income tax treatment of C corporation shares and S corporation shares. Consequently, when using C corporation (1) empirical studies and (2) pricing evidence to value S corporation equity ownership interests, it is necessary to adjust the indicated equity value of the S corporation.

S CORPORATIONS VERSUS C CORPORATIONS: THE CONCEPTUAL MISMATCH

There are a variety of differences—both tax and nontax—between S corporations and C corporations. There is substantial literature that describes these differences. This discussion will not address the vast majority of these differences. Instead, this discussion will focus solely on the valuation implications attributable to the income tax and capital gains tax differences between S corporations and C corporations at the shareholder level.

Table 1 illustrates the effect of these income tax differences. The analysis in Table 1 is based on the following assumptions:

- The C corporation is publicly traded and is identical in every respect to the S corporation (other than the income tax status of each corporation).
- The investment rates of return and market-derived pricing multiples of the C corporation are used to value the S corporation.
- The shares of the C corporation and the S corporation are owned on a noncontrolling ownership interest basis.

Table 1
Net Economic Benefit to Noncontrolling Shareholders

	No Distribution of Earnings		40% Distribution of Earnings		100% Distribution of Earnings	
	C Corp.	S Corp.	C Corp.	S Corp.	C Corp.	S Corp.
Income before income taxes	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000
Corporate income taxes	(40,000)	NM	(40,000)	NM	(40,000)	NM
Net income	60,000	100,000	60,000	100,000	60,000	100,000
Dividends to shareholders	0	0	24,000	40,000	60,000	100,000
Income tax due from shareholders	0	(40,000)	(9,600)	(40,000)	(24,000)	(40,000)
Net cash flow to shareholders	0	(40,000)	14,400	0	36,000	60,000
Net income	60,000	100,000	60,000	100,000	60,000	100,000
Dividends to shareholders	0	0	(24,000)	(40,000)	(60,000)	(100,000)
Net capital gains	60,000	100,000	36,000	60,000	0	0
Increase in income tax basis	0	(100,000)	0	(60,000)	0	0
Net taxable capital gains	60,000	0	36,000	0	0	0
Capital gains tax liability	(12,000)	0	(7,200)	0	0	0
Net capital gains benefit to shareholders	48,000	100,000	28,800	60,000	0	0
Net cash flow to shareholders	0	(40,000)	14,400	0	36,000	60,000
Net capital gains benefit to shareholders	48,000	100,000	28,800	60,000	0	0
Net economic benefit to shareholders	<u>\$ 48,000</u>	<u>\$ 60,000</u>	<u>\$ 43,200</u>	<u>\$ 60,000</u>	<u>\$ 36,000</u>	<u>\$ 60,000</u>

- The distribution (i.e., dividend) scenarios are as follows: (1) zero distributions, (2) a distribution of 40 percent of net income, and (3) a distribution of 100 percent of net income.
 - The corporate income tax rate is 40 percent.
 - The ordinary income tax rate applicable to individuals is 40 percent.
 - The applicable capital gains tax rate is 20 percent.
 - The capital gains tax liability is economically recognized when incurred.
 - Capital appreciation in the shares of each company is derived solely from increases in retained earnings.
 - The retained earnings of the C corporation are necessary for businesses purposes. Consequently, the C corporation would not be subject to the accumulated earnings tax under Internal Revenue Code Section 531.
2. The NEB_C declines as the dividend payout ratio increases.
 3. The NEB_S remains the same regardless of dividend payout ratio.

Each of these three conclusions is discussed below.

- The NEB_S is greater than the NEB_C regardless of dividend payout ratio. This is due to the fact that S corporation shareholders have two distinct income tax advantages: (1) dividends are not taxable at the shareholder level and (2) undistributed earnings of the S corporation increase the tax basis of the S corporation shares. Shareholders in C corporations do not enjoy either of these income tax benefits.
- The NEB_C declines as the dividend payout ratio increases. This is attributable to a greater proportion of the total economic benefit of the C corporation shareholder being taxed at the higher ordinary income tax rate of 40 percent (as opposed to the lower capital gains tax rate of 20 percent).
- The NEB_S remains the same regardless of the dividend payout ratio. This is due to the fact that the S corporation shareholder receives either (1) cash or (2) tax-free capital appreciation in the value of the stock.

The mix of economic benefit of cash or tax-free capital appreciation changes as the dividend payout ratio changes. However, the NEB_S remains the same regardless of the dividend payout ratio. Consequently, an increase in

THE DIVIDEND PAYMENT RATIO

The analysis of Table 1 leads to the following three important conclusions:

1. The net economic benefit to the S corporation shareholder (NEB_S) is greater than the net economic benefit to the C corporation shareholder (NEB_C)—regardless of earnings distribution (i.e., dividend payout ratio) scenario.

the dividend payout ratio serves to increase the difference in the net economic benefit between C corporation shareholders and S corporation shareholders.

The primary conclusion derived from Table 1 is that the dividend payout ratio of the C corporation is the most important aspect of the difference in the net economic benefit between C corporations and S corporations at the shareholder level.

As indicated by this analysis, there is a conceptual mismatch between (1) the information derived from empirical studies of transactions involving C corporation shares and (2) the net economic benefit enjoyed by S corporation shareholders. Further, this mismatch is not properly corrected by (1) tax-affecting the S corporation reported net income¹⁴ at some combination of federal and state income tax rates or (2) using pretax measurements of rates of return or pretax market-derived pricing multiples (i.e., price/earnings pricing multiples based on EBIT, EBITDA, etc.) derived from C corporations.

Also, the application of C corporation after-tax rates of return or after-tax market-derived pricing multiples (i.e., price/earnings pricing multiples based on net income or debt-free net income) to S corporation reported net income is equally incorrect.

As previously mentioned, empirical studies are unable to isolate the economic differences solely attributable to the differing income tax treatments of C corporation and S corporation shares. Consequently, it is necessary to develop a mathematical model that conceptually adjusts the indicated value of equity of an S corporation when empirical studies of C corporations are used to estimate value.

This mathematical model should contemplate the differences in the NEB_C and the NEB_S . To this end, the next section will present a mathematical formula referred to as "the S corporation economic adjustment."

THE S CORPORATION ECONOMIC ADJUSTMENT

The income tax-related differences in economic benefit between C corporations and S corporations essentially include the following:

- The income tax rates applicable to S corporation net income are based on ordinary income tax rates for individual shareholders. The income tax rates applicable to C corporation pretax income are based on corporate tax rates as defined in the various federal and state tax codes.

These two income tax rates are rarely equivalent.

- The dividend payout ratio has a material impact on the comparability of the economic benefit derived by C corporation shareholders as compared to S corporation shareholders.

Dividends paid by C corporations are taxed at the shareholder level at ordinary income tax rates. Dividends paid by S corporations typically are not subject to income taxes.

- Undistributed earnings of S corporations increase the tax basis of S corporation shares and therefore affect the potential capital gains tax liability attributable to those shares. This is not the case with respect to the undistributed earnings of C corporations.

SEA EQUATIONS

In order to create a mathematical model to address the economic differences attributable to the income tax characteristics discussed above, we begin with equations that model the NEB_C and the NEB_S . These two equations are then set equal to each other and an X factor is included to represent the correction to the inequality between these two equations. In this discussion, this X factor is called "the S corporation economic adjustment" (SEA). The NEB_C and NEB_S equations are provided below:

$$NEB_C = [I_p \times (1-t_c) \times D_p \times (1-t_i)] + [I_p \times (1-t_c) \times (1-D_p) \times (1-t_{cg})]$$

$$NEB_S = I_p \times (1-t_p)$$

where:

I_p = Reported taxable income prior to federal and state income taxes (where $I_p > 0$)

t_{cg} = Capital gains tax rate

t_c = C corporation effective income tax rate

t_i = Individual income tax rate

D_p = Dividend payout ratio

The NEB_C equation is comprised of two components:

1. the net cash flow benefit to the shareholder (i.e., the net cash received from dividends after the payment of income taxes at the shareholder level) and
2. the net capital gains benefit to the shareholder (i.e., the net capital gains benefit after the recognition of capital gains taxes at the shareholder level).

The first component (i.e., the net cash flow benefit) of the NEB_C is modeled between the first two brackets (i.e., []) of the equation. This first component performs the following calculations:

1. The pretax income of the C corporation (I_p) is multiplied by $(1-t_c)$ to calculate the after-tax net income (i.e., after corporate level income taxes);

- the after-tax net income is then multiplied by D_p to calculate the dividends paid to the shareholders; and
- the dividends paid to the shareholders are then multiplied by $(1-t_i)$ to calculate the net cash flow benefit (i.e., after the payment of income taxes at the shareholder level on the dividend distribution).

The second component (i.e., the net capital gains benefit) is modeled between the brackets to the right of the plus sign in the NEB_C equation. This second component performs the following calculations:

- The pretax income of the C corporation (I_p) is multiplied by $(1-t_c)$ to calculate the after-tax net income.
- The after-tax net income is multiplied by $(1-D_p)$ to calculate the amount of net income not paid out in dividends that contributes to the capital gain of the shareholders interest.
- The capital gain is multiplied by $(1-t_{CG})$ to calculate the net capital gain benefit after recognition of the capital gains tax liability at the shareholder level.

The combination of the first and second components of the NEB_C equation represents the total net economic benefit to the C corporation shareholder.

The NEB_S equation has only one component. The NEB_S equation multiplies the S corporation reported net income by $(1-t_i)$. This is the only adjustment necessary. This is because the income tax paid at the shareholder level represents the only income tax-related economic drain to the reported net income of the S corporation.

The remaining S corporation reported net income (i.e., after payment of income tax at the shareholder level) provides either (1) tax-free earnings distributions or (2) tax-free capital gains.¹⁵

After development of the NEB_C and NEB_S equations, these two equations are then set equal to each other and an X factor (i.e., the SEA) is inserted. This X factor represents the correction to the inequality between these two equations. This equation is then rearranged in order to create the SEA equation provided below:

$$SEA = NEB_S - NEB_C$$

The SEA equation is algebraically simplified to the following equation:

$$SEA = I_p \times (t_c + t_{CG} - t_c t_{CG} - t_i + D_p t_i - D_p t_c t_{CG} - D_p t_c t_i + D_p t_c t_{CG})$$

where:

- I_p = Reported taxable income prior to federal and state income taxes (where $I_p > 0$)
- t_{CG} = Capital gains tax rate
- t_c = C corporation effective income tax rate
- t_i = Individual effective income tax rate
- D_p = Dividend payout ratio

“The remaining S corporation reported net income (i.e., after payment of income tax at the shareholder level) provides either (1) tax-free earnings distributions or (2) tax-free capital gains.”

SEA FACTORS

The selection of each SEA factor listed above is properly left to the discretion of the individual analyst. However, the following recommendations are presented for consideration:

- *Capital gains tax rate*—the long-term capital gains tax rate of 20 percent.
- *C corporation effective income tax rate*—the combined effective income tax rate of the publicly traded C corporations comparable to the subject S corporation.
- *Individual income tax rate*—the individual effective income tax rate that would apply if the total S corporation net income were subject to individual income tax rates.
- *Dividend payout ratio*—the dividend payout ratio of the publicly traded C corporations comparable to the subject S corporation.

The SEA adjusts S corporation reported net income to a number that is economically equivalent to C corporation net income. Table 2 demonstrates the application of the SEA.

The following assumptions are used in the calculation of Table 2:

- t_{CG} = Capital gains tax rate of 20 percent
- t_c = C corporation effective income tax rate of 35 percent
- t_i = Individual ordinary income tax rate of 39 percent
- D_p = Dividend payout ratios of 0 percent, 50 percent, and 100 percent

The SEA equation quantifies the incremental net economic benefit of being an S corporation shareholder versus a C corporation shareholder. As such, the SEA equation is useful in creating a new equation that may be used to adjust the indicated value of equity of an S corporation when empirical stud-

Table 2
S Corporation Economic Adjustment (SEA)

	0% Distribution of Earnings		50% Distribution of Earnings		100% Distribution of Earnings	
	C Corp.	S Corp.	C Corp.	S Corp.	C Corp.	S Corp.
Income before income taxes	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000
Corporate income taxes	(35,000)	NM	(35,000)	NM	(35,000)	NM
S corporation earnings adjustment (SEA)	NM	(9,000)	NM	(15,175)	NM	(21,350)
Adjusted net income	65,000	91,000	65,000	84,825	65,000	78,650
Dividends to shareholders	0	0	32,500	50,000	65,000	100,000
Income tax due from shareholders	0	(39,000)	(12,675)	(39,000)	(25,350)	(39,000)
Net cash flow to shareholders	0	(39,000)	19,825	11,000	39,650	61,000
Net income	65,000	100,000	65,000	100,000	65,000	100,000
Dividends	0	0	(32,500)	(50,000)	(65,000)	(100,000)
Net capital gains	65,000	100,000	32,500	50,000	0	0
Effect of increase in income tax basis	0	(100,000)	0	(50,000)	0	0
Net taxable capital gains	65,000	0	32,500	0	0	0
Built-in capital gains tax liability	(13,000)	0	(6,500)	0	0	0
Net capital gains benefit to shareholders	52,000	100,000	26,000	50,000	0	0
Net cash flow to shareholders	0	(39,000)	19,825	11,000	39,650	61,000
S corporation earnings adjustment (SEA)	NM	(9,000)	NM	(15,175)	NM	(21,350)
Net capital gains benefit to shareholders	52,000	100,000	26,000	50,000	0	0
Total economic benefit to shareholders	<u>\$ 52,000</u>	<u>\$ 52,000</u>	<u>\$ 45,825</u>	<u>\$ 45,825</u>	<u>\$ 39,650</u>	<u>\$ 39,650</u>

ies and analyses of C corporations are used in the valuation analysis. In this article, I refer to this new equation as the S corporation equity adjustment multiple ("SEAM").

S CORPORATION EQUITY ADJUSTMENT MULTIPLE

The SEAM equation is based on the calculation of the incremental benefit of being an S corporation shareholder versus a C corporation shareholder on a percentage basis. This percentage is calculated by dividing the net economic benefit of being an S corporation shareholder versus a C corporation shareholder (i.e., the SEA) by the net economic benefit of being a C corporation shareholder (i.e., the NEB_C). This percentage is then added to 1.0 in order to calculate a multiple that may then be used to adjust the indicated value of equity of an S corporation, when empirical evidence of C corporations is used in the valuation analysis.

The SEAM equation is presented below:

$$SEAM = 1 + \frac{SEA}{NEB_C}$$

An algebraically simplified—and more detailed—version of the SEAM equation follows:

$$SEAM = 1 + \frac{(t_c + t_{cg} - t_p - t_c t_{cg} + D_p t_p - D_p t_{cg} - D_p t_c t_p + D_p t_c t_{cg})}{(1 - t_c - t_{cg} + t_c t_{cg} - D_p t_p + D_p t_{cg} + D_p t_c t_p - D_p t_c t_{cg})}$$

Table 3 illustrates the range of the SEAMs when differing dividend payout ratios (i.e., D_p) are assumed in the analysis.

The following assumptions are used in the analysis presented in Table 3:

- t_{cg} = Capital gains tax rate of 20 percent
- t_c = C corporation effective income tax rate of 35 percent
- t_p = Individual effective income tax rate of 39 percent

Table 3
SEAM Based on Alternative Dividend Payout Ratios

C Corporation Dividend Payout Ratio (%)	S Corporation Equity Adjustment Multiple (SEAM)	Percentage Increase in Equity Value
0	1.1731	17.31
10	1.2016	20.16
20	1.2316	23.16
30	1.2631	26.31
40	1.2962	29.62
50	1.3312	33.12
60	1.3680	36.80
70	1.4070	40.70
80	1.4482	44.82
90	1.4920	49.20
100	1.5385	53.85

As one would expect, the higher the dividend payout ratio for the C corporations used in the analysis of the S corporation, the higher the SEAM. This is because when C corporations pay a higher percentage of their earnings to shareholders in the form of dividends, the total economic benefit is reduced due to the impact of income taxes on dividends at the shareholder level.

APPLICATION OF THE SEAM IN BUSINESS VALUATION ANALYSIS

The application of the SEAM in business valuation analysis is relatively simple. The analyst (1) estimates the value of equity of the S corporation as though it were a C corporation and then (2) multiplies this concluded value by the SEAM.

When estimating the value of the equity of an S corporation using C corporation after-tax (i.e., after the payment of corporate level income taxes) capitalization rates or market-derived pricing multiples (i.e., price/earnings multiples based on net income, debt-free net income, etc.), the analyst should adjust the S corporation reported net income with the corporate income tax rate used to calculate the SEAM. The S corporation adjusted earnings may then be capitalized using appropriate market-derived pricing multiples or capitalization rates. The resulting indication of equity value may then be adjusted using the SEAM.

When estimating the value of the equity of an S corporation using C corporation pretax (i.e., prior to the payment of corporate level income taxes) capitalization rates or market-derived pricing multiples (e.g., price/earnings multiples based on EBITDA, EBIT, etc.), the analyst should use the S corporation reported earnings in the analysis. The S corporation reported earnings may then be capitalized using appropriate market-derived pricing multiples or capitalization rates. The resulting indication of equity value may then be adjusted using the SEAM.

It is important to point out that it is only appropriate to use the SEAM to adjust an indication of equity value on a noncontrolling ownership interest basis. It is not appropriate to apply the SEAM to an indication of equity value on a controlling ownership interest basis.

Also, it is not appropriate to apply the SEAM to the indicated values of (1) total invested capital or (2) total asset value. The SEAM is only applicable to the value of equity on a noncontrolling interest basis.

It is appropriate to apply the SEAM to an indication of equity value on a noncontrolling interest basis either before or after the application of a valuation adjustment for lack of marketability. Either way, the concluded indication of the value of equity should be identical.

Tables 4, 5, and 6 provide illustrative examples of how to apply the SEAM in the market, income, and asset-based business valuation approaches.

“As one would expect, the higher the dividend payout ratio for the C corporations used in the analysis of the S corporation, the higher the SEAM.”

SUMMARY AND CONCLUSION

The U.S. Tax Court has shaken up the legal, estate planning, and valuation communities. As a result of several recent decisions, the Tax Court has motivated valuation analysts to revisit long-held assumptions regarding the valuation of S corporation equity ownership interests at the shareholder level.

The Tax Court decisions on this topic are controversial. These decisions indicate that analysts should not adjust S corporation net income when using after-tax empirical capitalization rate evidence derived from C corporations.

However, the application of a combined effective federal and state income tax rate to the reported net income of S corporations is also controversial.

There are a multitude of factors that make S corporations and C corporations different. The SEAM does not address the valuation impact of the vast majority of these factors. For instance, the SEAM does not address the valuation impact of unrealized capital appreciation of S corporation shares versus S corporation distributions. Obviously, cash is typically more desirable than unrealized capital gains. Consequently, analysts may wish to adjust the discount for lack of marketability—or other relevant valuation variables—to reflect the dividend policy of the subject S corporation.

“As a result of several recent decisions, the Tax Court has motivated valuation analysts to revisit long-held assumptions regarding the valuation of S corporation equity ownership interests at the shareholder level.”

The SEAM provides a mathematical framework to adjust the indicated value of equity of an S corporation when empirical studies and analyses of C corporations are used in the valuation analysis. The SEAM contemplates the differences in economic benefit to the shareholder that result from differing income tax treatments of S corporation and C corporation shareholders. Consequently, the SEAM should prove useful in the valuation of S corporation shares at the shareholder level.

Table 4
Application of the S Corporation Equity Adjustment Multiple (SEAM)
in the Market Approach to Business Valuation

	Projected Year 1
S corporation reported net income	\$1,000,000
Estimated corporate level income taxes (@ 35%) [a]	<u>350,000</u>
C corporation equivalent net income	650,000
Tax-affected interest expense (\$100,000 x (1 - 35%))	<u>65,000</u>
Debt-free net income (DFNI)	715,000
DFNI market-derived pricing multiple (derived from empirical studies of C corporations)	<u>10.0</u>
Indicated fair market value of total invested capital on a marketable, noncontrolling interest basis	7,150,000
Interest-bearing debt in invested capital	<u>(2,000,000)</u>
Indicated value of equity capital on a marketable, noncontrolling interest basis	5,150,000
Discount for lack of marketability (@ 40%)	<u>(2,060,000)</u>
Indicated value of C corporation equity on a nonmarketable, noncontrolling interest basis	3,090,000
S corporation equity adjustment multiple (SEAM)	<u>1.30</u>
Indicated value of S corporation equity on a nonmarketable, noncontrolling interest basis	<u>\$4,017,000</u>

[a] Should be consistent with the corporate income tax rate used in the calculation of the SEAM.

Table 5
Application of the S Corporation Equity Adjustment Multiple (SEAM)
in the Income Approach to Business Valuation

	Projected Year 1
S corporation reported net income	\$1,000,000
Estimated corporate level income taxes (@ 35%) [a]	<u>350,000</u>
C corporation equivalent net income	650,000
Tax-affected interest expense (\$100,000 x (1 - 35%))	65,000
Depreciation expense	200,000
Capital expenditures	<u>(200,000)</u>
Incremental change in net working capital [b]	<u>0</u>
Invested capital net cash flow	715,000
Direct capitalization rate (derived from empirical studies of C corporations)	<u>0.10</u>
Indicated value of total invested capital on a marketable, noncontrolling interest basis	7,150,000
Interest-bearing debt included in invested capital	<u>(2,000,000)</u>
Indicated value of equity on a marketable, noncontrolling interest basis	5,150,000
Discount for lack of marketability (@ 40%)	<u>(2,060,000)</u>
Indicated value of C corporation equity on a nonmarketable, noncontrolling interest basis	3,090,000
S corporation equity adjustment multiple (SEAM)	<u>1.30</u>
Indicated value of S corporation equity on a nonmarketable, noncontrolling interest basis	<u>\$4,017,000</u>

[a] Should be consistent with the corporate income tax rate used in the calculation of the SEAM.
[b] Incremental net working capital requirement typically will not be equal to zero.

Table 6
Application of the S Corporation Equity Adjustment Multiple (SEAM)
in the Asset-Based Approach to Business Valuation

	Projected Year 1
Indicated value of S corporation total assets on a controlling interest basis	\$10,000,000
Indicated value of total liabilities	<u>3,562,500</u>
Indicated value of equity on a controlling interest basis	6,437,500
Discount for lack of control (@ 20%)	<u>1,287,500</u>
Indicated value of equity on a marketable, noncontrolling interest basis	5,150,000
Discount for lack of marketability (@ 40%)	<u>(2,060,000)</u>
Indicated value of equity on a nonmarketable, noncontrolling interest basis	3,090,000
S corporation equity adjustment multiple (SEAM)	<u>1.30</u>
Indicated value of S corporation equity on a nonmarketable, noncontrolling interest basis	<u>\$ 4,017,000</u>

Notes:

1. These U.S. Tax Court decisions dealt with the issue of whether the earnings of an S corporation should be tax-affected when the valuation analysis uses a capitalization rate (or present value discount rate) that is estimated from the empirical evidence of rates of return on publicly traded C corporations.
2. *Gross v. Commissioner*, T.C. Memo 1999-254 (July 29, 1999), *aff'd* 272 F.3d 333 (6th Cir. 2001).
3. *Heck v. Commissioner*, T.C. Memo 2002-34 (Feb. 5, 2002).
4. *Adams v. Commissioner*, T.C. Memo 2002-80 (Mar. 28, 2002).
5. Obviously, there are other differences between S corporations and C corporations. However, this discussion focuses solely on the differences in income tax treatment and how this income tax treatment affects the economic returns to shareholders.
6. This assumes that empirical market-derived evidence of C corporations is used to value the S corporation equity.
7. See Merle Erickson and Shiing-Wu Wang, "The Effect of Organizational Form on Acquisition Price," *Journal of Economic Literature*, May 7, 2002, pp. 1-44.
8. Throughout this discussion, the term "shareholder level" refers to a lack of control ownership interest in the equity of a business enterprise.
9. Generally accepted approaches to business valuation include the (1) market approach, (2) income approach, and (3) asset-based approach. In order to eliminate unnecessary complexity in the explanations contained in this article, a specific discussion of the asset-based approach has been omitted. Theoretically, the discussion contained within this article is equally applicable to all business valuation approaches, including the asset-based approach.
10. The capitalization rate is generally estimated by subtracting an expected long-term growth rate from an investment rate of return.
11. The present value discount rate is generally estimated by calculating an investment rate of return for the applicable security or investment.
12. Conceptually, market-derived pricing multiples (i.e., P/E pricing multiples) are the mathematical inverse of investment rates of return.
13. Obviously, there are a multitude of factors that contribute to the capital appreciation (or depreciation) of an equity security. However, it is impossible to mathematically model all of these factors. Consequently—for the purpose of this discussion—let's assume that capital appreciation is solely derived from the retained earnings of the corporation (i.e., net income minus dividends).
14. Throughout this discussion, S corporation reported net income is defined as net income prior to the payment of federal and state income tax at the shareholder level.
15. In this discussion, let's assume that all capital gains to the shareholder are derived from undistributed earnings of the S corporation. Since undistributed earnings increase the income tax basis of the S corporation shares, the capital gains are, therefore, tax-free.

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