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Guest Article:

## Comparing three payout assumptions' impact on values of S versus C corps

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*As the accompanying editorial suggests, whether S corporation interests are worth more than C corporation interests, at least at the minority interest level, depends on several factors. One important factor is the level of distributions. In this article Chris Treharne demonstrates a methodology for valuing S corporation interests that recognizes the impact on value associated with different levels of income distributions. – SP*



Chris D. Treharne

In response to four recent Tax Court cases<sup>1</sup>, this article will propose a valuation strategy to address the question: Are S corporations worth more than C corporations?

To begin, the article will identify a number of assumptions. The assumptions will then be used in five valuation scenarios to develop a strategy for quantifying the economic differences between pass-through tax entities ("PTEs") and C corporations when using the income approach.

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<sup>1</sup> *Gross v. Commissioner*, T.C. Memo 1999-254 (U.S. Tax Ct., July 29, 1999), *aff'd*, 272 F.3d 333 (6th Cir. 2001); *Wall v. Commissioner*, T.C. Memo 2002-75; *Estate of Adams v. Commissioner*, T.C. Memo 2002-80; and *Estate of Heck v. Commissioner*, T.C. Memo 2002-34.

<sup>2</sup> Shannon P. Pratt, *Cost of Capital: Estimation and Applications* (New York: John Wiley & Sons, Inc., 1998), 97.

<sup>3</sup> Adapted from: Shannon P. Pratt, Robert F. Reilly, Robert P. Schweis, *Valuing a Business: The Analysis and Appraisal of Closely Held Companies*, 4th ed. (Boston: McGraw-Hill, 2000), 158.

### Four assumptions for analysis

First, assume that the standard of value is fair market value as defined in Revenue Ruling 59-60. As a result, the analysis may or may not apply to valuation assignments prepared under different standards of value or in different jurisdictions than the federal courts.

Second, assume that cash flow available to equity investors (as defined in Exhibit 1) affects dividends and stock price changes, which, in turn, contribute to value<sup>2</sup>.

For simplicity, this article presumes that the only relevant changes to net cash flow are reflected in the changes to net income and not in other cash flow components. Note that Exhibit 1 assumes that the "Owner

distribution (PTE tax liability only)" entry includes only the personal tax liability associated with PTE income. In the analysis that follows, excess PTE distributions will be identified and treated separately.

The present value of future returns to investors can be determined by multiplying a discount factor by future cash flows and then summing the results. The discount factor is derived from the cost of equity capital, which typically is obtained from public stock market data published by Ibbotson Associates.

Note that Ibbotson's rates of return include all dividends plus capital gains or

### EXHIBIT 1: NET CASH FLOW TO EQUITY<sup>3</sup>

Pretax income
<b>less: Income taxes</b>
-----
Net income (after taxes)
+ Noncash charges
- Capital expenditures
- Changes in net working capital
+ Net changes in long-term debt
<b>- Owner distribution (PTE tax liability only)</b>
-----
Net cash flow to equity

A C corporation's income tax liability is recognized on the "Income taxes" line (bold). If the net cash flow presentation is modified to be consistent with Statement of Financial Accounting Standards (SFAS) No. 95, Statement of Cash Flows, the distribution associated with a PTE's income tax liability will be shown on the "Owner distribution (PTE tax liability only)" line (bold).

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losses<sup>4</sup>. Logically, when using Ibbotson's cost of equity capital, the subject company's future returns must be normalized and stated on a similar basis.

Third, because publicly traded stocks are C corporations, assume that Ibbotson's market return data reflect the satisfaction of income tax liabilities associated with entity income<sup>5,6</sup>.

Furthermore, whether the entity is a C corporation or a PTE, the cash associated with entity income tax obligations is unavailable to the owners through distributions or reinvestment in company operations and, therefore, cannot contribute to value. This absence of contribution-to-value premise is consistent with the earlier cited definition of value<sup>7</sup> plus Ibbotson's rates of return. Most importantly, the inability of the tax liability to contribute to value represents an important symmetry between the two entities that cannot be dismissed casually.

Fourth, assume personal income tax liabilities are based on a 38.6% marginal federal rate and a 5% marginal state rate. Additionally, C corporation federal income tax liabilities are calculated on a graduated basis while state liabilities are fixed at 5% of taxable income.

The analyst must determine whether these tax rates are appropriate for each assignment. Different income tax rate assumptions will produce different results.

Using these assumptions, a strategy for valuing PTEs will be developed, as shown in Exhibits 2 and 3.

## Five valuation scenarios

Scenario 1 follows the *Gross* opinion's recommendations and does not tax-affect the income stream. As a result, Scenario 1 yields the largest value of the five methods presented.

Scenario 2 values the PTE as if it were a C corporation, using the pre-*Gross*, IRS-recommended valuation strategy<sup>8</sup>. As shown in Scenario 2, if equivalent C corporation tax liabilities are recog-

nized, the conclusion is much smaller than in Scenario 1. To be consistent with Exhibit 1 and SFAS No. 95, PTE tax liabilities associated with entity income should be shown on a line labeled "Owner distribution (PTE tax liability only)." For simplicity, however, the tax liabilities have been shown on the "Total income taxes" line.

In Exhibit 3, Scenario 2 will be reproduced in the top sections of Scenarios 3a, 3b, and 3c, and will become the benchmark from which other adjustments will be made. Also note that the C corporation income tax entries are boxed in Exhibits 2 and 3.

Scenario 3 has three parts and represents an alternative PTE valuation strategy that is intended to overcome the limitations of Scenarios 1 and 2. More specifically, Scenarios 3a, 3b, and 3c each recognize the benefit of having only one level of taxation on excess distributions, versus two levels of taxation on C corporation dividends.

Additionally, the scenarios recognize the value adjustment associated with the tax-rate differentials between the two types of entities.

The only difference between the three scenarios is the level of income being distributed (see "PTE distributions" line in the "DOUBLE TAXATION ADJ." section of Exhibit 3). The three PTE valuation alternatives are:

- Scenario 3a, which assumes distribution of 100% of PTE income (i.e., similar to *Gross*)
- Scenario 3b, which assumes distribution of only the tax liability associated with PTE income
- Scenario 3c, which assumes distribution of 0% of PTE income

As shown in the boxed "DOUBLE

TAXATION ADJ." section of Scenario 3a in Exhibit 3, substantial benefit can be attributed to PTE value when excess distributions are made (as in *Gross*).

In general, PTE distributions in excess of the equivalent C corporation taxes will contribute to value. Even so, when considering a valuation adjustment for excess distributions, the analyst should not casually overlook the likelihood that no excess distributions will be paid.

Because many analysts choose to recognize the value contribution of dividends (which are somewhat analogous to excess distributions) by adjusting the discount for lack of marketability<sup>9</sup>, the value adjustment associated with excess distributions could be treated similarly.

Referring to the "TAX-RATE DIFFERENTIAL ADJ." section of Scenario 3a, recognize that the "Total entity taxes (PTE)" entries are greater than the equivalent C corporation taxes. As a result, there is a reduction in value relative to the C corporation benchmark. Also, note that the present value adjustment in this section is identical for Scenarios 3a, 3b, and 3c.

As shown in Scenario 3b, the only difference between Scenarios 3a and 3b is the present value of the tax benefit associated with PTE distributions exceeding the equivalent C corporation's tax (see "DOUBLE

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<sup>4</sup> *Stocks, Bonds, Bills and Inflation, Valuation Edition, 2002 Yearbook* (Chicago: Ibbotson Associates, 2002), 37.

<sup>5</sup> *Ibid.*, 87.

<sup>6</sup> *Cost of Capital*, 151-152.

<sup>7</sup> *Ibid.*, 97.

<sup>8</sup> *IRS Valuation Guide for Income, Estate and Gift Taxes: Valuation Training for Appeals Officers Coursebook*, pp. 7-14; and *IRS Examination Technique Handbook*.

<sup>9</sup> *Valuing a Business*, 417.

## EXHIBIT 2: TAX-AFFECTING AND IMPACT ON VALUE

	Scenario 1: No Tax Affecting ( <i>Gross</i> )				Scenario 2: Equivalent C Corp Value			
	2002	2003	2004	Present Value	2002	2003	2004	Present Value
Pretax income	600,000	1,200,000	1,800,000		600,000	1,200,000	1,800,000	
State taxes (C corp)					30,000	60,000	90,000	
Federal taxes (C corp)					193,800	387,600	581,400	
Total income taxes					223,800	447,600	671,400	
Net income	600,000	1,200,000	1,800,000		376,200	752,400	1,128,600	
Terminal value			7,560,000				4,740,120	
Net cash flow	600,000	1,200,000	9,360,000		376,200	752,400	5,868,720	
Present value	461,538	710,059	4,257,294	5,428,891	289,385	445,207	2,669,323	3,403,915

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## EXHIBIT 3: IMPACT OF VARIOUS DISTRIBUTION SCENARIOS ON VALUE

	Scenario 3a: Distribute 100% of PTE Income				Scenario 3b: Distributions Equal PTE Tax Liability				Scenario 3c: Distribute 0% of PTE Income			
	2002	2003	2004	Present Value	2002	2003	2004	Present Value	2002	2003	2004	Present Value
<b>EQUIVALENT C CORP VALUE</b>												
Pretax income	600,000	1,200,000	1,800,000		600,000	1,200,000	1,800,000		600,000	1,200,000	1,800,000	
State income taxes (C corp)	30,000	60,000	90,000		30,000	60,000	90,000		30,000	60,000	90,000	
Federal income taxes (C corp)	193,800	387,600	581,400		193,800	387,600	581,400		193,800	387,600	581,400	
<b>Total income taxes (C corp)</b>	<b>223,800</b>	<b>447,600</b>	<b>671,400</b>		<b>223,800</b>	<b>447,600</b>	<b>671,400</b>		<b>223,800</b>	<b>447,600</b>	<b>671,400</b>	
Net income (C corp)	376,200	752,400	1,128,600		376,200	752,400	1,128,600		376,200	752,400	1,128,600	
Terminal value			4,740,120				4,740,120				4,740,120	
<b>Net cash flow</b>	<b>376,200</b>	<b>752,400</b>	<b>5,868,720</b>		<b>376,200</b>	<b>752,400</b>	<b>5,868,720</b>		<b>376,200</b>	<b>752,400</b>	<b>5,868,720</b>	
Present value	289,385	445,207	2,669,323	3,403,915	289,385	445,207	2,669,323	3,403,915	289,385	445,207	2,669,323	3,403,915
<b>DOUBLE TAXATION ADJ.</b>												
PTE distributions	600,000	1,200,000	1,800,000		250,020	500,040	750,060		0	0	0	
Total entity taxes (C corp)	<b>223,800</b>	<b>447,600</b>	<b>671,400</b>		<b>223,800</b>	<b>447,600</b>	<b>671,400</b>		<b>223,800</b>	<b>447,600</b>	<b>671,400</b>	
Equivalent C corp dividends	376,200	752,400	1,128,600		26,220	52,440	78,660		-223,800	-447,600	-671,400	
Personal state taxes on dividends	18,810	37,620	56,430		1,311	2,622	3,933					
Personal federal taxes on dividends	137,953	275,905	413,858		9,615	19,230	28,845					
<b>Net PTE benefit (liability)</b>	<b>156,763</b>	<b>313,525</b>	<b>470,288</b>		<b>10,926</b>	<b>21,852</b>	<b>32,778</b>		<b>-223,800</b>	<b>-447,600</b>	<b>-671,400</b>	
Terminal value			1,975,208				137,666				-2,819,880	
<b>Total PTE tax benefit (liability)</b>	<b>156,763</b>	<b>313,525</b>	<b>2,445,496</b>		<b>10,926</b>	<b>21,852</b>	<b>170,444</b>		<b>-223,800</b>	<b>-447,600</b>	<b>-3,491,280</b>	
Present value	120,587	185,518	1,113,107	1,419,211	8,405	12,930	77,580	98,915	-172,154	-264,852	-1,589,112	-2,026,118
<b>TAX-RATE DIFFERENTIAL ADJ.</b>												
Entity state taxes (personal)	30,000	60,000	90,000		30,000	60,000	90,000		30,000	60,000	90,000	
Entity federal taxes (personal)	220,020	440,040	660,060		220,020	440,040	660,060		220,020	440,040	660,060	
<b>Total entity taxes (PTE)</b>	<b>250,020</b>	<b>500,040</b>	<b>750,060</b>		<b>250,020</b>	<b>500,040</b>	<b>750,060</b>		<b>250,020</b>	<b>500,040</b>	<b>750,060</b>	
Total entity taxes (C corp)	<b>223,800</b>	<b>447,600</b>	<b>671,400</b>		<b>223,800</b>	<b>447,600</b>	<b>671,400</b>		<b>223,800</b>	<b>447,600</b>	<b>671,400</b>	
<b>Net PTE benefit (liability)</b>	<b>-26,220</b>	<b>-52,440</b>	<b>-78,660</b>		<b>-26,220</b>	<b>-52,440</b>	<b>-78,660</b>		<b>-26,220</b>	<b>-52,440</b>	<b>-78,660</b>	
Terminal value			-330,372				-330,372				-330,372	
<b>Total PTE tax benefit (liability)</b>	<b>-26,220</b>	<b>-52,440</b>	<b>-409,032</b>		<b>-26,220</b>	<b>-52,440</b>	<b>-409,032</b>		<b>-26,220</b>	<b>-52,440</b>	<b>-409,032</b>	
Present value	-20,169	-31,030	-186,178	-237,376	-20,169	-31,030	-186,178	-237,376	-20,169	-31,030	-186,178	-237,376
<b>VALUATION CONCLUSION</b>												
Present value			4,585,750				3,265,453				1,140,420	

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TAXATION ADJ." section).

Additionally, recognize that the fair market value of Scenario 2 (i.e., the equivalent C corporation value) is within 4% of the PTE value of Scenario 3b.

If tax rates are similar and no excess distributions are paid, equivalent C corporation and PTE values generally will be similar, and the pre-Gross, IRS-recommended valuation strategy will produce a value that falls within a range of values acceptable to most experts.

In Scenario 3c, the absence of PTE dis-

tribution in that case (assuming the court had relied on the income approach).

The *Wall* income method conclusions would have been even more accurate if the experts had considered the tax-rate differential's impact on the value of the subject interest as recognized in the "TAX-RATE DIFFERENTIAL ADJ." sections of Scenarios 3a, 3b, and 3c.

## Conclusion

The four case law precedents do not adequately address the value differences between PTEs and C corporations. To overcome the deficiencies of the Tax Court's PTE valuation strategy, the analyst should tax-affect the income stream and determine its equivalent C corporation value using Ibbotson's rates of return. To quantify the economic differences between the equiva-

of the current case law regarding differences in value between PTEs and C corporations. **BVU**

## VALUATION SUMMARY

Scenario 1: Not tax-affected ( <i>Gross, Estate of Adams, Estate of Heck</i> opinions)	\$5,428,891
Scenario 2: Equivalent C corporation value ( <i>Gross</i> and <i>Estate of Adams</i> taxpayers experts; <i>Wall</i> taxpayer and IRS experts)	\$3,403,915
Scenario 3a: Distribute 100% of tax liability	\$4,585,750
Scenario 3b: Distributions equal PTE tax liability	\$3,265,453
Scenario 3c: Distribute 0% of tax liability	\$1,140,420

tributions creates a significant reduction in the present value adjustment (again, see "DOUBLE TAXATION ADJ." section). In general, the failure to pay adequate PTE distributions to satisfy the personal tax liability associated with entity income will reduce the value of the PTE.

## Valuation summary

Based on the preceding analyses, the *Gross* valuation strategy (Scenario 1) generated the largest value. However, the value is overstated because rates of return from public market transactions were used without normalizing the subject company's income stream to reflect a cash outflow (i.e., the tax liability associated with entity income) that is part of the empirical data's cash flow and, therefore, rates of return. Overlooking the necessary symmetry of the two cash flow streams will overstate value.

The equivalent C corporation value of Scenario 2 resulted in an understatement of value just as it did when the taxpayer's experts in *Gross* failed to recognize the personal tax benefit associated with the subject company's excess distributions.

In *Wall*, however, the entity did not pay excess distributions. Recognizing this, it is likely that the IRS's and the taxpayer's experts' equivalent C corporation methods would have produced an acceptable con-

clusion C corporation value and the PTE value, the analyst then should consider valuation adjustments to:

- Recognize the PTE tax benefit (liability) associated with the nontaxable status of excess (inadequate) distributions, if any.
- Recognize the impact of tax-rate differentials between the two entity types (i.e., personal versus corporate income taxes associated with the company's income).

Are PTEs worth more than C corporations? The correct answer is: It depends. If all other things are equal and the tax benefit associated with a PTE's excess distributions is greater than the tax liability associated with the income tax-rate differential between the PTE and the C corporation, the PTE will be worth more than the equivalent C corporation. Otherwise, it will be worth less.

Also recognize that this article does not address all of the issues associated with the differences between PTEs and C corporations. Among the issues that have not been considered are the impact on growth rates and rates of return when income is distributed versus retained.

Even so, a valuation strategy has been presented that overcomes the shortcomings