INVESTOR BEHAVIOR AND THE VALUATION OF PASS-THROUGH ENTITIES

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I. INTRODUCTION

At a recent IRS valuation symposium, Tax Court Judge Halpern and representatives of the IRS professed their belief that the proper way to value minority interests in private, operating, pass-through entities (LLCs, S corporations, and partnerships) was to use cash flows and earnings that had not been taxed at the entity level. In round numbers, this results in a pass-through entity value premium of about 65% to 70% relative to a C corporation. Admittedly, pass-through entities pay almost no entity level tax, so it does not appear that they should be burdened with a fictitious tax. Based upon our quantitative analysis of the actual economic benefits of pass-through status though, we believe the premium is at most 25% to 30%. Consideration of other qualitative factors would lead to an even lower premium. The valuation of operating pass-through entities is perhaps the most significant disagreement between the IRS and valuation experts today.

This article discusses the traditional approaches that have been used by valuation analysts and by the Tax Court to value private, operating, pass-through companies (such as an S corporation), and in particular whether to "tax-effect" the earnings of the S corporation to account for the difference in tax treatment between an S corporation and a C corporation. We propose that a more specific focus on investor cash flows after all taxes, and on other pass-through entity attributes and risks, produces a valuation that more accurately reflects real investor behavior.

II. ESTATE AND GIFT TAX VALUATION

The valuation of private, operating pass-through entities occurs as a result of provisions in the Internal Revenue Code (IRC) and the gift and estate tax regulations. Both require the determination of a pass-through entity's fair market value. IRC section 2512(a) provides that if a gift is made of property, "the value thereof at the date of the gift shall be considered to be the amount of the gift." Value for this purpose is defined as fair market value, or "the price at which such property would change hands between a willing buyer and a willing seller, neither being under any compulsion to buy or to sell, and both having reasonable knowledge of relevant facts."[1] IRC section 2001(a) imposes a tax on "the transfer of" a decedent's taxable estate. IRC section 2031(a) provides that the "value of the gross estate of the decedent shall be determined by including to the extent provided for in this part, the value at the time of his death of all property, real or personal, tangible or intangible, wherever situated." The estate tax regulations define fair market value exactly the same as the gift tax regulations quoted above.[2]

III. VALUATION APPROACHES

Tasked with determining the fair market value of a minority interest in an operating entity, a valuation analyst usually uses both a market approach and an income approach.[3] The market approach uses stock prices and other financial information from public companies that are similar to the subject company to develop "multiples." Multiples are ratios that measure a company's value (i.e., stock price) relative to its financial performance (i.e., earnings per share). The multiples from the public comparable companies are then applied to the financial metrics of the private company to develop an indication of value.

The income approach uses investor return expectations to convert future benefits to a current value. The income approach is generally applied using either the discounted cash flow method or the single-period capitalization method. The discounted cash flow method measures the value of a company by calculating the "present value" of "future benefits." An investor in a company can expect future benefits in the form of cash dividends (or distributions) or future sale proceeds. We determine the present value of these expected cash flows because benefits that are expected several years from now are less valuable than the same benefits paid to an investor today. The further away and more risky the cash flow, the lower the value will be.

The present value of expected cash flows is developed using discount rates. Discount rates are determined based upon the past performance of the share prices of public companies. Generally, appraisers use two types of discount rates depending on the cash flows they are discounting. If the cash flows represent proceeds to the equity shareholders, a cost of equity discount rate would be used. If the cash flows represent proceeds to both debt and equity investors, we use a weighted average cost of capital (WACC), which is a weighting of the cost of equity and cost of debt financing.

The single-period capitalization method values a company that is growing at a steady rate based just on an estimate of the cash flow produced in the next year, the discount rate, and the expected cash flow growth rate. To value the company you divide the expected cash flow by the capitalization rate (which is the discount rate less the long-term growth rate).

The first challenge that usually arises in valuing private, operating pass-through entities is that there are no public companies that have both similar operations and similar tax status.[4] Most public companies are C corporations. Without public guideline companies, a valuation expert cannot apply the market approach and is left with just one going-concern method of valuation, the income

approach. As a result, most of the discussion in the Tax Court cases around valuing pass-through entities focuses on the application of the income approach, and whether or not to "tax-effect" earnings when developing the estimates of future cash flow. Tax-affecting means treating a pass-through entity as if it did pay corporate taxes like a C corporation. Historically, many valuation analysts have taken the position that treating the pass-through entity this way was the correct valuation methodology. We do not.

IV. TAX COURT APPROACH

The Tax Court however, has a fairly long history of accepting valuations where no entity level tax is applied, or doing their own valuations this way. The first such case was *Gross v. Commissioner*[5] in 1999 with Judge Halpern presiding. McCoy, the appraisal expert for the taxpayer, testified that the Uniform Standards of Professional Appraisal Practice required an appraiser to "tax affect" the earnings of an S corporation in order to produce a credible business appraisal. To this end, McCoy applied a fictitious 40% corporate tax rate to the forecasted future earnings of the subject company before discounting those earnings to present value, and he disregarded the taxes paid by the shareholders. The government appraiser, Bajaj, assumed a zero percent corporate rate and also disregarded the taxes paid by the shareholders. The Court agreed with Bajaj on this principle.

The judge in *Wall*,[6] Judge Beghe, showed understandable but unseemly pique at the failure of the parties to settle the case. He did not explicitly say, "A pox on both their houses," but he might as well have. Both the taxpayer and the government changed their positions before trial to their respective advantage. The judge adopted the government position, which it first advanced with the notice of deficiency before it increased its asserted value. The discussion of tax-affecting the earnings of the S corporation in question is contained in footnote 19, indicating the lack of seriousness with which the judge viewed the issue. He relied on *Gross* in saying that tax affecting an S corporation's earnings treats the S like a C, and as a result gives "no value to [the corporation's] S corporation status."[7] As a result, the judge concludes that there should be no tax-affecting, a significant leap.

Heck[8] also involved an S corporation. Neither Bajaj for taxpayer nor Spiro for the government even mentioned tax-affecting the earnings to get a valid cash flow for their discounted cash flow analysis. This is hardly a surprise—in *Gross*, testifying for the government, Bajaj argued that tax-affecting at a tax rate greater that zero was not appropriate. He could hardly change his mind in this case and remain credible. Even though the earnings were not tax-affected, the resulting value was not far off from the value asserted by Bajaj, the taxpayer's expert. The valuation dispute focused on the correct discount rate, in this case the WACC. The Court picked the Bajaj determined rate, which was actually lower than that of the government's expert.

In *Adams*,[9] the taxpayer's appraiser, Shriner, took a slightly different approach and applied a capitalization rate "before corporate tax" because an S Corporation pays no income tax. As a result, he used a higher capitalization rate in capitalizing the cash flows in his analysis, which leads to a lower valuation. This approach results in a value similar to tax-affecting the S corporation earnings. Judge Colvin concluded, however, that since the S corporation paid no corporate tax, his cash flows were "after" tax cash flows—the tax just happened to be zero (citing *Gross*). Hence the court did not allow the higher capitalization rate to be used on the cash flows, resulting in a higher value, though the final result was closer to the taxpayer's position that the government's.

Judge Colvin had the next tax-affecting case as well, *Dallas v. Commissioner*.[10] In evaluating the petitioner's experts on valuation, respecting the tax-affecting of earnings, the court said, "We give [the] testimony [of the taxpayer's experts] little weight." And the court was justified in doing so, since the experts did not give him any analytical foundation—hence, no tax-affecting. Notwithstanding that conclusion, the net result was about mid-way between the taxpayer and the government.

In *Gallagher*,[11] Judge Halpern spoke a third time on tax-affecting earnings. He appears to accept the validity of the proposition, but then recants. First, the court says, "Since most data on which stock valuation is based is derived from publicly traded C corporations, appraisers may tax-affect an S corporation's earnings to reflect its S status in its stock value," citing the Bogdanski treatise on Federal Tax Valuation. But on the next page, the court quotes itself from the *Gross* case and says,

> As we stated in Gross v. Commissioner, T.C. Memo. 1999-254, the principal benefit enjoyed by S corporation shareholders is the reduction in their total tax burden, a benefit that should be considered when valuing an S corporation. Mr. May has advanced no reason for ignoring such a benefit, and we will not impose an unjustified fictitious corporate tax rate burden on PMG's future earnings.

V. AN INVESTOR'S APPROACH

That the Tax Court continues to value pass-through entities at such large premiums to C corporations is mostly a failure of the valuation industry to educate the Tax Court and explain its methods at trial. Several models have been developed over the years that evaluate the differences between pass-through entities and C corporations.[12] Understanding the models is difficult, especially for those not educated in financial theory. As we saw in the *Gallagher* case, when an expert can't explain, or the judge can't understand, your methods, the court is unlikely to accept them on faith.[13] We would like to take a different approach, and explain the fundamental concepts and assumptions behind the models, using some simple examples.

A. Focus on Return After All Taxes

In order to properly value a minority interest in a pass-through entity, one first needs to understand that after-tax personal returns really drive the financial markets. That is, investors are most sensitive to, react to, are driven by, and price investments based upon, their expected returns after all taxes. This makes sense intuitively and is accepted within the financial markets. If you accept this economic principle, you should expect to see investments of similar risks, but with different tax attributes, priced differently to adjust returns so that they are on an even footing after all taxes.

1. Municipal Bonds

Fortunately, we are able to observe this principle every day in the bond market where municipal bonds, which generally aren't taxed at the state or federal level for individuals, have a yield to maturity (YTM)[14] before personal taxes significantly below the YTM of corporate bonds, which are fully taxable for individuals.

As of July 1, 2011, a group of about 100 AA to AAA-rated municipal bonds with a 2017 maturity had a median YTM of 1.99%. A similarly-rated group of about 100 corporate bonds with a similar maturity date had a YTM of 2.94%. The yield of the corporate bonds is higher, as we expected.

It is also possible to estimate what the YTM of the municipal bond group would be just by knowing its tax attributes and the YTM of the taxable counterpart (the corporate bonds). In essence, we just determine what the after-tax YTM would be on the corporate bonds. We deduct from the YTM of 2.94% the 41.5% personal income tax,[15] or 1.22%, to get an expected municipal bond yield of 1.72%. This is close to the observed yield of 1.99%. We are slightly off in this calculation because corporate bonds are also subject to tax on capital gains and losses, which would further reduce the personal tax rate below 41.5%. But that analysis is too complex for our purposes. Overall, the economic principle is evident.

2. Oil and Gas Storage and Distribution

Further evidence of this principle is evident in one of the few industries in the U.S. where there are both publicly-traded C corporations and pass-through entities – oil and gas storage and distribution. The companies in this industry are primarily pass-through entities, but a few are structured as C corporations. We focused our analysis on 7 C corporations and 7 limited partnerships[16] that we believe are priced by investors based upon their dividend yield.[17] Generally, these companies had stable, growing dividends. We selected companies so that, as a group, they were of similar size to eliminate any differences in yield due to business risk. Remember that the C corporation investors will pay less in personal tax on qualified dividends than the pass-through entity shareholders will pay on distributions. So we should expect to see dividend yield for the C corporations be lower. In fact, this is exactly what we observe.

The pass-through entities had dividend yields between 4.5% and 6.6%, with an average yield of 5.6% and a median yield of 5.5%. Assuming a 41.5%[18] total personal tax burden on distributions from a pass-through entity, the after tax average and median yields were 3.3% and 3.2%, respectively. The C corporations had yields that ranged from 3.1% to 4.8%, with an average of 4.0% and a median of 3.9%. Deducting 23.5%[19] total personal taxes from the dividends results in an average yield of 3.0%, and a median of 3.0%. After all taxes were considered, the yields of both groups of companies are very similar. Once again, the economic principle that investors price securities based upon expected returns after all taxes is evident.

In the valuation of pass-through entities, similar to the examples above, we must keep in mind that we can't use valuation measures such as YTM, dividend yield, or a WACC derived from taxable entities and apply them directly to pass-through entities. For example, if we were pricing a pass-through oil and gas storage and distribution company (pretend for a moment that we don't have any public pass-through comparable companies) and selected an average yield of 4.0% from the C corporations, we would be making a significant valuation error as we know the dividend yields for pass-through entities are much higher, 5.6%. Pass-through entities can only accurately be valued relative to their taxable counterparts (C corporations) after *all* the tax burdens are considered.

3. Applying Investor Behavior to Private Pass-Through Entities

As discussed above, we can convert cash flows into values by using capitalization rates. They are similar to the YTMs we observed in the bond market, but for equities the rates tend to be a little higher because equities are more risky and investors need to be compensated for that risk. For example, if an entity generated $100 in cash flow after all taxes and it had a capitalization rate of 5.0% after all taxes, we would pay $2,000 for the entity ($100/5.0%).

With this knowledge in hand, let's extend our analysis to two identical California operating companies, one an S corporation, the other a C corporation. Both generate $100 in cash flow (and taxable income) before any taxes. Both will distribute all available cash from earnings. The S corporation will pay $1.5 in entity tax, leaving $98.5, while the C corporation will pay about $40.7[20] in federal and state tax, and be left with about $59.3.

The Tax Court at this point would have us value the two entities using C corporation derived capitalization rates. This is tempting because all the discount and capitalization rate data are from C corporation stock returns before personal taxes. Assume that the C corporation capitalization rate is 10%. This yields a value for the S corporation of $985, and a value of $593 for the C corporation—a premium of about 66% for the S corporation. But since we know that investors really price investments after *all* taxes, let's take the analysis through to that level.

The S corporation shareholders would need to pay taxes on the pass-through income of $98.5 at 41.5%,[21] or $40.9, and would be left

with $57.6 after all taxes. The C corporation shareholders would need to pay 23.5%[22] tax on income of $59.3, and would be left with $45.4. Converting these cash flows now into asset values using an after-all-taxes capitalization rate of, say, 6% yields values of $960 for the S corporation and $757 for the C corporation—a premium of only 27% for the S corporation. So what happened? Simply put, although S corporations have an advantage over C corporations in that they don't pay any material entity level tax, C corporations have a tax advantage over S corporations on the taxation of distributions, which helps to offset the entity level advantage. If you accept that investors value investments based upon their expected returns after all taxes, you must reject the method of valuing pass-through entities used by the Tax Court since 1999.

In addition to measuring returns after all taxes, there are other considerations when valuing operating, pass-through entities as well, some of which are discussed below.

B. Pass-Through Entity Benefit Period

Using the single-period capitalization method as we have above assumes the differences in cash flow between the pass-through entity and the C corporation will continue forever. Although this is sometimes the most reasonable assumption, it often is not. The pass-through status can be terminated for several reasons, such as a sale[23] to an unqualified shareholder, or a financing requirement. Using our own model, an expected pass-through life of approximately 20 years or more is required to justify the full 27% premium discussed above. At a 5-year expected pass-through term, the premium is approximately half the full 27% premium.

C. Retention of Earnings to Grow Business

Consider another situation, which is very common, in which the pass-through entity pays its own entity level tax ($1.5 in our example) and distributes the $40.9 to shareholders so that they are able to pay personal tax on their pass-through income. However the pass-through entity retains the rest of its income to reinvest in the business. The pass-through entity and its shareholders would have paid $42.4 in taxes, and the shareholders would have also received an increase of their stock basis of $57.6 ($98.5 - $40.9), the reinvested earnings. The C corporation also retains its after tax income to grow the business but is able to reinvest slightly more, or $59.3 ($100-$40.7).

The difference in the reinvestment rate of $1.7 ($59.3 - $57.6) is small. But earnings reinvestment is the source of growth for companies and this small difference grows over time through compounding. Compounding is generating future earnings on reinvested earnings. Take for example an investor that has an investment that returns 10% annually. With $100 invested, she would have $110 at the end of the first year. If she chose to reinvest the $110, she would have $121 ($110 x (1+10%)) at the end of the second year. She has through reinvestment grown the $100 faster than she would have if she kept the first year's earnings of

$10 and only reinvested the original $100. Over time the effect of compounding can be significant.

So the C corporation will grow faster and be worth more in a sale than the pass-through entity. The pass-through entity though is accumulating basis increases every year, which is an important benefit to shareholders upon a sale of shares. However, the tax basis increases *accumulate*, they don't grow in a compound manner like the value of the company. Depending on the expected life of the pass-through status, this small difference can have a significant effect on the pass-through premium. Using our own model again, at an expected pass-through life of 15 years and maximum earnings reinvestment, the premium for an S corporation over a C corporation is reduced to about 20%.[24]

D. Distribution Risk

Finally, the shareholders in a pass-through entity also bear the risk that they will not receive distributions in amounts sufficient to pay personal taxes on pass-through income. C corporation shareholders bear no such risk as they only pay personal taxes on dividends when received. Sometimes pass-through entities have provisions in their governing documents providing shareholders with a guarantee of distributions to meet taxes, but often there is no such provision. Absent a contractual provision, the shareholders risk having to come "out of pocket" for taxes. The more conflict there is between shareholders, and the more cash the entity requires, the higher the risk. Other considerations would also be the distribution history and the entity's capital expenditure plans. This risk is best addressed by adding a risk premium to the discount rate of the entity.

Unfortunately, the amount of the "distribution risk" premium to add to the discount rate is subjective as there are no studies available examining the issue. In fact, such a study would seem to be almost impossible to conduct because few public companies, for which discount rate data could be calculated, have their shareholders incur such a risk. To maintain pass-through tax status as a public entity, real estate investment trusts (the one industry which has significant public, pass-through entities) must distribute substantially all their income.

But investors rarely have perfect information with which to make their decisions. In establishing the fair market value of an investment, we are trying to mimic the behavior of the hypothetical willing buyer and willing seller, not just buyers and sellers with perfect information. The Tax Court seems to prefer the use of several well-documented studies and data to support assumptions. As valuation experts, we do as well. However, there are situations when a concept makes sense but doesn't have several studies to support it. A reasonable estimate, absent well-documented studies, more accurately portrays an investor's behavior, and thus fair market value, than abandoning an adjustment because of a lack of definitive data. As an example, in the first example above, adding a small premium of 0.25% to the capitalization rate (6.0% + 0.25% = 6.25%) yields an S corporation value of $922, a premium of 22% over the C corporation value of $757 instead of the 27% premium demonstrated in that example.

As Bodanski[25] notes in commenting on *Heck*, another way to address this risk is through an adjustment to the discount. The court in *Heck* allowed a 10% premium to the combined discount to reflect a right of first refusal and "the inability of a purchaser of decedent's minority interest to influence dividend distributions, which would be at the discretion of the controlling shareholder."

VI. CONCLUSION

In conclusion then, to apply the method the Tax Court has advocated since 1999, and most recently in *Gallagher*, to pass-through entities today results in a material valuation error. The Tax Court's decisions are in part understandable. The Tax Court judges are not trained in finance and don't appear to have been presented with a lucid argument to prove their method inappropriate. We hope that this explanation will be useful both to advocates and to valuation experts and Tax Court judges in future cases to encourage a more accurate valuation of pass-through entities in light of the real world factors that drive investment decisions.

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1. Treas. Reg. section 25.2512-1.
2. See Treas. Reg. section 20.2031-1(b).
3. Another commonly used approach is the asset approach, which determines the value of a company's equity based upon the value of its individual assets and liabilities. It is generally viewed as the weakest of the three valuation methods because of the difficulty in valuing individual intangible assets. The asset approach works well for holding companies, or companies holding primarily tangible assets.
4. If the private, pass-through company we are valuing has ample public pass-through guideline companies, for example REITs or pipelines, the premium relative to a C corporation issue is moot, because we would value the subject company directly as a pass-through entity using the market approach.
5. *Gross v. Commissioner*, T.C. Memo. 1999-254.
6. *Wall v. Commissioner*, T.C. Memo. 2001-75.
7. *Id.*, at note 19.
8. *Estate of Heck v. Commissioner*, T.C. Memo. 2002-34.
9. *Estate of Adams v. Commissioner*, T.C. Memo. 2002-80.
10. *Dallas v. Commissioner*, T.C. Memo. 2006-212.
11. *Estate of Gallagher v. Commissioner*, T.C. Memo. 2011-148.

12. Barber, *Valuation of Pass-Through Entities*, Valuation Strategies, March/April 2001, pp. 4-11, 44-45. This article does not reflect the tax law changes enacted in the Economic Growth and Tax Relief Reconciliation Act of 2001 or the Jobs and Growth Tax Relief Reconciliation Act of 2003 so its conclusions are outdated. We have, however, updated the model used in the article to reflect the current tax laws. Treharne, *Valuation of Minority Interests in Pass-Through Entities,* Business Valuation Review, September 2004, pp. 105-116. Mercer, *Are S corporations Worth More than C corporations?*, Business Valuation Review, September 2004, pp. 117-138. Grabowski, *S Corporation Valuations in the Post-Gross World – Updated*, Business Valuation Review, September 2004, pp. 139-166. Van Fleet, *The S Corporation Economic Adjustment Model*, Business Valuation Review, September 2004, pp. 167-180.

13. In *Gallagher*, the petitioner's expert made several adjustments to the value of the subject company to address the pass-through status, after first valuing it as a C corporation. Judge Halpern stated in return, "Petitioner fails to convince us of the accuracy of Mr. May's adjustments and, therefore, we disregard them." See *Estate of Gallagher v. Commissioner, supra*, at pp. 44-45 .

14. The yield to maturity, in its simplest form, is the annualized cash dividend return generated before a bond matures and the investor receives back his or her principal. For example, if a bond paid an annual dividend of $50 and its value was $1,000, it would have a yield to maturity of 5.0% ($50/$1,000).

15. Calculated as: 35% Federal plus ((1-35%) x 10% State) = 41.5%.

16. Although the limited number of C corporation oil and gas storage distribution companies limits the strength of our conclusions, we believe the data lends support to our belief that securities are priced on their expected returns after *all* taxes.

17. Yield is simply the current dividend annualized, divided by the share price.

18. See Note 15.

19. Calculated as: 15% Federal plus ((1-15%) x 10% State) = 23.5%.

20. Calculated as: 35% Federal plus ((1-35%) x 8.84% State) = 40.7%.

21. See note 15.

22. See note 19.

23. As an added benefit though, pass-through entities can structure a sale to realize further tax benefits.

24. The superior growth of the C corporation through higher reinvestment can be offset by the tax advantages realized by the pass-through entity upon sale, for example, by making a section 338(h)(10) election for an S corporation. We have not considered a price premium for the pass-through entity upon sale due to an advantageous transaction structure.

25. Bogdanski, Federal Tax Valuation (Thomson Reuters/WG&L, 1996, with updates through April 2011) (online version accessed on Checkpoint <www.checkpoint.riag.com>).