The Impact of S Corporation Status on Fair Market Value

by Brian H. Burke, ASA

When sold in arm's length transactions, S corporations fetch greater value for their owners than do their C-corporation counterparts. Said another way: All else being equal, a C corporation has a lower fair market value than it would have if it were a qualifying S corporation. Not only is this true, it is entirely logical that it would be. And this rather basic point seems to be missed in the professional articles on the subject of S-corporation value and in panel discussions on the subject at business valuation seminars.

This phenomenon is directly germane to business appraisals when the level of value being sought is the S corporation's enterprise value and the standard of value is fair market value. Realistically, this involves most S corporation appraisals, since even when the subject of the appraisal is a fractional interest, most analysts will do a whole-business valuation en route to their opinion of the partial interest.²

The formal definition of fair market value is familiar to BVR readers. Most can recite it by rote. A simpler rendition is this: It is the value an asset is likely to fetch in an arm's length transaction with a hypothetical buyer. Thus, to give an opinion of fair market value implies a knowledge on the part of the appraiser through experience and/or research of the economics of actual private-company transactions. The arguments and estimates in the remainder of this article are intended to advance that subject.

In the following sections, I will offer the basic reasoning and underlying economics of the value differential, a quantification of the differential, and some of the implications of these findings.

Background and Underlying Economics

Before the repeal of the General Utilities Doctrine in the tax reform legislation of the mid-1980s, C corporation sellers could file a plan of liquidation and then sell the corporation's assets to the buyer. If such sellers followed the prescribed rules, the proceeds from the sale would not become part of the taxable income of the C corp. No more. Now the sale proceeds enjoy no such exception. To the extent that these proceeds do not have offsetting deductions, they constitute taxable corporate income and typically at the composite marginal rate of about 40%. Then those net proceeds are taxed again at the individual level when distrib-

uted to the stockholders. This is the dreaded double tax, so familiar to those involved in private company deals. In the worst case, the combined effective rate is well more than 50%.

Qualifying S corporations (and unincorporated entities) present little or no such entity-level tax costs to their owners. They can sell assets to the buyer, incur no federal corporate tax liability in so doing, and on the distributed proceeds their owners receive the more-favorable capital gains treatment to boot. But more important for the purposes of this article, an asset deal is much preferred by buyers, since they can amortize all the intangible value for tax purposes.

It should be pointed out that in transactions involving very small C corporations, the actual double tax can be ameliorated by various strategies that involve the buyer's paying some of the purchase consideration directly to the C corporation shareholders (say, for consulting or restrictive covenants) and the selling corporation's passing some of the proceeds through to the shareholders as salary. But even when those strategies are successful, some of the proceeds are double-taxed and the rest are taxed at ordinary income rates and are often subject to payroll taxes as well.

The relevance to this article of these woes of a C corporation seller is that they find their way into the deal value. This happens in one of two ways. One way is demonstrated in the case of the asset deal in which there is an unavoidable tax cost at the corporate level before the sale proceeds are received by the selling corporation's stockholders. I am not referring here to taxes paid by the selling stockholders on the net proceeds they receive. Capital gains or income taxes on final proceeds should not affect fair market value. Rather, I am referring to a corporate tax liability and thus to a direct reduction of equity value received prior to individual income or capital gains taxes. We are familiar with the issue of embedded gains and taxes in financial and physical assets. The issue here, however, is the taxable gain in goodwill (caused by the acquisition), usually much larger than the gain in tangibles.

The second way this affects deal value is a bit more subtle but equally common in practice. Because the potential impact of the double tax is so distasteful, C corporation sellers will frequently make significant

concessions during negotiations to induce the prospective buyer to acquire stock, i.e. to acquire the subject corporation itself and not just its assets. And because a stock deal is costlier to the buyer, the price concessions are a required inducement. On a purely financial basis, a stock deal is costlier to a buyer because the buyer cannot amortize, for tax purposes, the portion of the deal attributed to the stock. This directly affects net cash flows and thus lowers net returns. And, beyond the direct impact on cash flows is the entire issue of hidden liabilities and other deal costs associated with buying a corporation. A full treatment of this subject goes beyond the scope of this article, but the impact of these factors is clear and significant: All else being equal, the price paid for a C corporation in an arm's length deal is virtually always less than what would be paid for the assets of its S corporation counterpart.

Quantification

To quantify the impact of the factors explained above, I made the calculations shown in Exhibits 1 through 6. In all of them I have modeled a debt financed transaction in which the buyer follows the discipline of using all net deal-created cash flows to liquidate deal-created debt. By "net cash flows" I mean cash flow from operations minus interest, corporate taxes, and a modest annual reserve for working capital growth.

Exhibit 1 shows a stock deal. This hypothetical deal has a value of \$2,000,000 (or 4 times pretax cash flow of \$500,000). The allocation of the purchase price is 100% to stock. And, for simplicity, the entire deal is assumed to be financed by one term note bearing interest at 9% per year. As shown in the box next to Years To Liquidate the Acquisition Note, the deal "works" in 7.21 years (meaning that all deal debt would be liquidated in about 7 years, 3 months).

Exhibit 2 shows an asset deal for the same value. In this illustration the entire purchase price is allocated to intangible assets, which by federal statute can be amortized for tax purposes over a 15-year, straight-line schedule. Because of the tax efficiency, this deal works in 6.2 years.

In Exhibit 3, I then turned up the dial, so to speak, on the cash flow multiple, and thus on the deal value, until I arrived at a value that would work in 7.21 years, the same period as the stock deal. This yielded a deal value 17.8% greater than the stock deal.

While the figures in Exhibits 1, 2, and 3 serve to show the value differential quite clearly, it is a bit unrealistic to portray a stock deal as having literally zero tax-deductible amortization. In such deals, it is common to have some of the price allocated to, say, restrictive covenants, which is paid directly to the selling stockholders and is amortizable by the buyer for tax purposes (again, on a 15-year schedule). Such allocations are usually modest, however, since they are resisted by sellers because of their ordinary income tax treatment. Thus, I created Exhibits 4 through 6, which mirror Exhibits 1 through 3 in all respects except that \$300,000 of the stock deal (Exhibit 4) is allocated to restrictive covenants. Exhibit 5, related to an asset deal, is unchanged from its counterpart, Exhibit 2. As shown in Exhibit 6, the implied value differential is 15.3%, compared to 17.8% in Exhibit 3. And this has been my consistent experience: That, all else being equal, the difference in fair market value between S corporations and C corporations is about 15%, not huge, but certainly not negligible.

An additional and significant fact is that the asset deal modeled in Exhibits 3 and 6 contain additional future tax benefits to the buyer. That is to say, for the remaining 7+ years of tax deductible amortization (15 years minus the debt liquidation period), the buyer receives a tax deduction without the expenditure of cash. At the incremental amortization shown in Exhibit 6 and a 40% composite marginal rate, the tax benefit is about \$53,000 per year. Discounting that at, say, a cost of funds rate of 9% would yield a deal-date present value of nearly \$160,000. I can't claim to quantify with any certainty just how much this additional tax benefit to the buyer works its way into actual deal negotiations, but it is not a negligible factor, and to some degree it adds to the favorable impact of S corporation status.

In creating the exhibits, I used the somewhat homespun debt liquidation model to quantify the impact on value of the S corporation status because the model is transparent as to cash flows. You can see through it, so to speak, and view the return both on, and of, the buyer's investment. My purpose here was not to calculate the value of my hypothetical company but to show the difference in values caused by the tax efficiency, all else being equal. But the same effect can be demonstrated with more sophisticated valuation approaches, such as a DCF model or a capitalization of normalized income model.

cash flow of \$500,000 times a multiple of 4, could be translated into a value based on after tax cash flow of \$300,000 times a multiple of 6.67. If we then raise after tax cash flow by \$53,467 (as a result of adding an additional \$133,667 of tax deductible amortization and multiplying it by a 40% marginal rate), we raise the value, all else being equal, by about \$356,000, or by more than 17%. Augmenting after tax cash flows in a DCF model would yield a result of a similar magnitude.

Going through such exercises is useful in sorting

For example, the value shown in Exhibit 4, of pretax

out the order of magnitude of the value differential. But there should be no real surprise at the existence of, or direction of, the differential. It is elementary that if you augment expected cash flows without af-

fecting the operations or risk profile of the subject

business, you augment the economic value.

Conclusions

My conclusions from the reasoning and examples above are these:

1. In actual acquisitions of private companies, the selling firm's being a qualifying S corpo-

ration, or an unincorporated entity, brings

- greater sale proceeds to its owners than would be the case if it were a C corporation. And this is not an occasional observation. The phenomenon is well known in the marketplace, and the economics make it virtually always true.

 2. The difference in value will usually have an order of magnitude in the range of 15% to
- order of magnitude in the range of 15% to 20%.

 3. This difference is directly relevant to busi-
- ness appraisals when the level of value is the enterprise value and the standard of value is fair market value.

Implications and Practical Considerations The three drivers of the fair market value of a

business's operations are the discount rate, the assumed growth rate, and, of course, the expected size of the cash flow being capitalized. If your subject is an S corporation and the net cash flow stream being capitalized is determined by the application of a full marginal tax bracket against gross operating cash flows (after depreciation on the equipment), it is likely that

you have understated the net cash flows and thus un-

derstated the value. The tax efficiency of acquiring

assets is fully understood and fully operative in the world of private business valuation. To fail to recognize it is to fail to recognize the definition of fair market value.

Implied in this reasoning, I acknowledge, is that

the buyer is a tax paying C corporation. I am comfort-

able with that implication for two reasons. For one thing, I believe C corporation status is as likely a form of buyer organization as any other. For another, however, even when the buyer is an S corporation, it typically behaves as a C corporation in making tax payments. By that I mean that such entities often pay the stockholders' tax caused by the K-1 profit, as if it were paying the tax on profits reported on an 1120 (the C corporation's tax return). I simply do not observe, or hear about, the buyer's organizational form (S, C, LLC, partnership, or sole proprietorship) af-

fecting buyer behavior in any way that could be considered systematic and thus needing to be reckoned

with for business valuation purposes.

Another thing to consider is that if you are appraising an S corporation and are relying heavily on compiled surveys of completed transactions (such as in Pratt's Stats or Bizcomps), you probably need to make some judgment about whether the completed deals surveyed are for C corporations, S corporations, or unincorporated entities. I tend to use such surveys only in a reasonableness review and thus don't approach them with much rigor. If I had to be more scientific, however, I would assume that less than half the trans-

actions, especially the smaller ones, were ones in

which the selling entities were C corporations. That

is, the S corporation benefit is reflected in a majority of the cases.

Finally, there is a tendency by some appraisers to think this entire subject applies only at the far reaches of the small company end of the private business spectrum. After all, the argument goes, the purchase currency in larger deals is more likely to be the buyer's stock and considerations of purchase driven tax deductions and debt based financing are less likely to

apply. There is some logic to this argument in some cases, but generalizations based on company size can lead to erroneous conclusions. Many deals made with the currency of buyer shares are asset deals in which the buyer utilizes purchase accounting (as opposed to pooling of interest accounting); and in those deals the ability to amortize intangibles for tax purposes has a direct bearing on cash flows and earnings and is cer-

tainly not ignored in the analyses and negotiations leading to the ultimate deal value.

Endnotes

- By this term we mean qualifying S corporations.
 This includes those with the S status from inception and those having been converted from C-corporation status for at least 10 years. The benefits ascribed to S corporations in this article apply also to unincorporated entities.
- The only case in which the value differential discussed here may not be germane is one in which the value of a fractional interest is based directly and entirely upon the dividends and other

distributions from the fractional interest and no weight is given to whole-business value. In the universe of private businesses, this is a small minority of cases.

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Post-Acquisition Cash Flows & Debt Liquidation in a Stock Deal

The Sublect Company

Annual Operating Revenue \$4,000,000

Annual Costs & Expenses 3,500,000 (including an equipment-replacement allowance in lieu of depreciation)

Pretax Cash Flow from Operations 500,000

Derived Multiple of Pretax Cash Flow 4.0

Value of the Operations \$2,000,000

Illustrative Purchase-Price Allocation*

| | | Tax-Deductible Amortization | | | | |
|-------------------|-------------|-----------------------------|-------------|--|--|--|
| Deal Item | Allocation | <u>Years</u> | \$ Per Year | | | |
| Intangible Assets | 0 | 15 | 0 | | | |
| Stock | 2,000,000 | not appl | | | | |
| Total | \$2,000,000 | | | | | |

Illustrative Debt Financing

Debt Principal \$2,000,000 (100% of the deal, for purposes of this illustration)

Interest Rate 9.0%

Years To Liquidate the Acquisition Note 7.21

Detail by Year

| 1 | 2 | 3 | 4 | - 5 | 6 | 7 | 8 | |
|-----------|---|---|---|---|--|---|--|--|
| 520,000 | 540,800 | 562,432 | 584,929 | 608,326 | 632,660 | 657,966 | 684,285 | |
| 4.0% | 4.0% | 4.0% | 4.0% | 4.0% | 4.0% | 4.0% | 4.0% | |
| 2,000,000 | 1,810,000 | 1,597,820 | 1,361,785 | 1,100,112 | 810,901 | 492,127 | 141,636 | |
| 14,000 | 14,560 | 15,142 | 15,748 | 16,378 | 17,033 | 17,714 | 18,423 | |
| 506,000 | 526,240 | 547,290 | 569,181 | 591,948 | 615,626 | 640,251 | 665,861 | |
| 180,000 | 162,900 | 143,804 | 122,561 | 99,010 | 72,981 | 44,291 | 12,747 | |
| 0 | 0 | 0 | . 0 | 0 | 0 | . 0 | . 0 | |
| 340,000 | 377,900 | 418,628 | 462,369 | 509,316 | 559,678 | 613,674 | 671,537 | |
| 136,000 | 151,160 | 167,451 | 184,947 | 203,727 | 223,871 | 245,470 | 268,615 | |
| 190,000 | 212,180 | 236,035 | 261,673 | 289,212 | 318,774 | 350,490 | 141,636 | |
| 1,810,000 | 1,597,820 | 1,361,785 | 1,100,112 | 810,901 | 492,127 | 141,636 | 0 | |
| | 4.0% 2,000,000 14,000 506,000 180,000 0 340,000 136,000 190,000 | 520,000 540,800 4.0% 4.0% 2,000,000 1,810,000 14,000 14,560 506,000 526,240 180,000 162,900 0 0 340,000 377,900 136,000 151,160 190,000 212,180 | 520,000 540,800 562,432 4.0% 4.0% 4.0% 2,000,000 1,810,000 1,597,820 14,000 14,560 15,142 506,000 526,240 547,290 180,000 162,900 143,804 0 0 0 340,000 377,900 418,628 136,000 151,160 167,451 190,000 212,180 236,035 | 520,000 540,800 562,432 584,929 4.0% 4.0% 4.0% 4.0% 2,000,000 1,810,000 1,597,820 1,361,785 14,000 14,560 15,142 15,748 506,000 526,240 547,290 569,181 180,000 162,900 143,804 122,561 0 0 0 0 340,000 377,900 418,628 462,369 136,000 151,160 167,451 184,947 190,000 212,180 236,035 261,673 | 520,000 540,800 562,432 584,929 608,326 4.0% 4.0% 4.0% 4.0% 4.0% 2,000,000 1,810,000 1,597,820 1,361,785 1,100,112 14,000 14,560 15,142 15,748 16,378 506,000 526,240 547,290 569,181 591,948 180,000 162,900 143,804 122,561 99,010 0 0 0 0 0 340,000 377,900 418,628 462,369 509,316 136,000 151,160 167,451 184,947 203,727 190,000 212,180 236,035 261,673 289,212 | 520,000 540,800 562,432 584,929 608,326 632,660 4.0% 4.0% 4.0% 4.0% 4.0% 4.0% 2,000,000 1,810,000 1,597,820 1,361,785 1,100,112 810,901 14,000 14,560 15,142 15,748 16,378 17,033 506,000 526,240 547,290 569,181 591,948 615,626 180,000 162,900 143,804 122,561 99,010 72,981 0 0 0 0 0 0 340,000 377,900 418,628 462,369 509,316 559,678 136,000 151,160 167,451 184,947 203,727 223,871 190,000 212,180 236,035 261,673 289,212 318,774 | 520,000 540,800 562,432 584,929 608,326 632,660 657,966 4.0% 4.0% 4.0% 4.0% 4.0% 4.0% 4.0% 2,000,000 1,810,000 1,597,820 1,361,785 1,100,112 810,901 492,127 14,000 14,560 15,142 15,748 16,378 17,033 17,714 506,000 526,240 547,290 569,181 591,948 615,626 640,251 180,000 162,900 143,804 122,561 99,010 72,981 44,291 0 0 0 0 0 0 0 340,000 377,900 418,628 462,369 509,316 559,678 613,674 136,000 151,160 167,451 184,947 203,727 223,871 245,470 190,000 212,180 236,035 261,673 289,212 318,774 350,490 | |

^{*}Tangible assets are not included in this illustrative allocation, since depreciation charges are assumed to be covered by capital-equipment allowances included in the calculation of operating cash flows.

Post-Acquisition Cash Flows & Debt Liquidation in an Asset Deal

The Subject Company

Annual Operating Revenue \$4,000,000

Annual Costs & Expenses 3,500,000 (including an equipment-replacement allowance in lieu of depreciation)

Pretax Cash Flow from Operations 500,000

Tax-Deductible Amortization

Derived Multiple of Pretax Cash Flow 4.0

Value of the Operations \$2,000,000

Illustrative Purchase-Price Allocation*

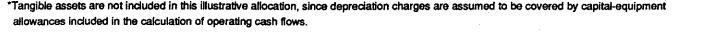
| Deal Item | Allocation | <u>Years</u> | \$ Per Year |
|-------------------|-------------|--------------|-------------|
| Intangible Assets | \$2,000,000 | 15 | 133,333 |
| Stock | | | |
| Total | \$2,000,000 | | |
| , | | | |

Illustrative Debt Financing

Debt Principal \$2,000,000 (100% of the deal, for purposes of this illustration)

Interest Rate 9.0%

| Years To Liquidate the Acquis | sition Note | 6.20 | | | | | | 4 |
|---|-------------|-----------|-----------|-----------|---------|---------|---------|---------|
| Detail by Year | | | | YEA | R | | | |
| • | . 1 | 2 | 3 | - 4 | 5 | 6 | 7 | 8 |
| Cash Flow from Operations | 520,000 | 540,800 | 562,432 | 584,929 | 608,326 | 632,660 | 657,966 | 684,285 |
| Growth Rate | 4.0% | 4.0% | 4.0% | 4.0% | 4.0% | 4.0% | 4.0% | 4.0% |
| Debt at Beginning of Year | 2,000,000 | 1,756,667 | 1,488,273 | 1,192,990 | 868,869 | 513,836 | 125,688 | 0 |
| Addition to Working Capital | 14,000 | 14,560 | 15,142 | 15,748 | 16,378 | 17,033 | 17,714 | 18,423 |
| Cash Flow Available for Debt Service & Taxes | 506,000 | 526,240 | 547,290 | 569,181 | 591,948 | 615,626 | 640,251 | 665,861 |
| Interest Payment | 180,000 | 158,100 | 133,945 | 107,369 | 78,198 | 46,245 | 11,312 | . 0 |
| Tax-Deductible Amortization | 133,333 | 133,333 | 133,333 | 133,333 | 133,333 | 133,333 | 133,333 | 133,333 |
| Taxable Income | 206,667 | 249,367 | 295,154 | 344,227 | 396,795 | 453,081 | 513,321 | 550,951 |
| Tax (@40%) | 82,667 | 99,747 | 118,062 | 137,691 | 158,718 | 181,232 | 205,328 | 220,380 |
| Principal Payment | 243,333 | 268,393 | 295,283 | 324,121 | 355,032 | 388,149 | 125,688 | 0 |
| Debt at End of Year | 1,756,667 | 1,488,273 | 1,192,990 | 868,869 | 513,836 | 125,688 | 0 | 0 |
| | | | | | | | | . ` |



Post-Acquisition Cash Flows & Debt Liquidation in an Asset Deal

The Subject Company

Annual Operating Revenue

\$4,000,000

Annual Costs & Expenses

3,500,000 (including an equipment-replacement allowance in lieu of depreciation)

Pretax Cash Flow from Operations

500,000

Derived Multiple of Pretax Cash Flow

4.7

Value of the Operations

\$2,355,000

17.8% Higher than Stock Deal



Years

Illustrative Purchase-Price Allocation*

Tax-Deductible Amortization

Allocation

\$ Per Year

\$2,355,000

15 157,000

Stock

Total

Deal Item

Intangible Assets

\$2,355,000

Illustrative Debt Financing

Debt Principal

\$2,355,000 (100% of the deal, for purposes of this illustration)

Interest Rate

Years To Liquidate the Acquisition Note

9.0% **7.21**

Same as the Stock Deal

Detail by Year

| <u> </u> | YEAR | | | | | | | |
|---|-----------|-----------|-----------|-----------|-----------|---------|---------|---------|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| Cash Flow from Operations | 520,000 | 540,800 | 562,432 | 584,929 | 608,326 | 632,660 | 657,966 | 684,285 |
| Growth Rate | 4.0% | 4.0% | 4.0% | 4.0% | 4.0% | 4.0% | 4.0% | 4.0% |
| Debt at Beginning of Year | 2,355,000 | 2,121,370 | 1,863,204 | 1,578,700 | 1,265,941 | 922,883 | 547,357 | 137,049 |
| Addition to Working Capital | 14,000 | 14,560 | 15,142 | 15,748 | 16,378 | 17,033 | 17,714 | 18,423 |
| Cash Flow Available for Debt Service & Taxes | 506,000 | 526,240 | 547,290 | 569,181 | 591,948 | 615,626 | 640,251 | 665,861 |
| Interest Payment | 211,950 | 190,923 | 167,688 | 142,083 | 113,935 | 83,060 | 49,262 | 12,334 |
| Tax-Deductible Amortization | 157,000 | 157,000 | 157,000 | 157,000 | 157,000 | 157,000 | 157,000 | 157,000 |
| Taxable Income | 151,050 | 192,877 | 237,744 | 285,846 | 337,392 | 392,600 | 451,704 | 514,950 |
| Tax (@40%) | 60,420 | 77,151 | 95,097 | 114,339 | 134,957 | 157,040 | 180,682 | 205,980 |
| Principal Payment | 233,630 | 258,166 | 284,504 | 312,760 | 343,057 | 375,527 | 410,308 | 137,049 |
| Debt at End of Year | 2,121,370 | 1,863,204 | 1,578,700 | 1,265,941 | 922,883 | 547,357 | 137,049 | 0 |

^{*}Tangible assets are not included in this illustrative allocation, since depreciation charges are assumed to be covered by capital-equipment allowances included in the calculation of operating cash flows.

Post-Acquisition Cash Flows & Debt Liquidation in a Stock Deal

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The Subject Company

Annual Operating Revenue \$4,000,000

Annual Costs & Expenses 3,500,000 (including an equipment-replacement allowance in lieu of depreciation)

Tax-Deductible Amortization

Pretax Cash Flow from Operations 500,000

Derived Multiple of Pretax Cash Flow 4.0

Value of the Operations \$2,000,000

Illustrative Purchase-Price Allocation*

| Deal Item | Allocation | <u>Years</u> | \$ Per Year |
|-------------------|-------------|--------------|-------------|
| Intangible Assets | \$ 300,000 | 15 | 20,000 |
| Stock | 1,700,000 | not appl | |
| Total | \$2,000,000 | | |

Illustrative Debt Financing

Debt Principal \$2,000,000 (100% of the deal, for purposes of this illustration)

Interest Rate 9.0%

Years To Liquidate the Acquisition Note 7.11

Detail by Year

| • | 1 | . 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|-----------|-----------|-----------|-----------|-----------|---------|---------|---------|
| Cash Flow from Operations | 520,000 | 540,800 | 562,432 | 584,929 | 608,326 | 632,660 | 657,966 | 684,285 |
| Growth Rate | 4.0% | 4.0% | 4.0% | 4.0% | 4.0% | 4.0% | 4.0% | 4.0% |
| Debt at Beginning of Year | 2,000,000 | 1,802,000 | 1,581,388 | 1,336,466 | 1,065,426 | 766,341 | 437,161 | 75,702 |
| Addition to Working Capital | 14,000 | 14,560 | 15,142 | 15,748 | 16,378 | 17,033 | 17,714 | 18,423 |
| Cash Flow Available for Debt Service & Taxes | 506,000 | 526,240 | 547,290 | 569,181 | 591,948 | 615,626 | 640,251 | 665,861 |
| Interest Payment | 180,000 | 162,180 | 142,325 | 120,282 | 95,888 | 68,971 | 39,344 | 6,813 |
| Tax-Deductible Amortization | 20,000 | 20,000 | 20,000 | 20,000 | 20,000 | 20,000 | 20,000 | 20,000 |
| Taxable Income | 320,000 | 358,620 | 400,107 | 444,647 | 492,438 | 543,689 | 598,621 | 657,471 |
| Tax (@40%) | 128,000 | 143,448 | 160,043 | 177,859 | 196,975 | 217,476 | 239,449 | 262,989 |
| Principal Payment | 198,000 | 220,612 | 244,922 | 271,040 | 299,085 | 329,180 | 361,458 | 75,702 |
| Debt at End of Year | 1,802,000 | 1,581,388 | 1,336,466 | 1,065,426 | 766,341 | 437,161 | 75,702 | 0 |

^{*}Tangible assets are not included in this illustrative allocation, since depreciation charges are assumed to be covered by capital-equipment allowances included in the calculation of operating cash flows.

Post-Acquisition Cash Flows & Debt Liquidation in an Asset Deal

The Subject Company

Annual Operating Revenue \$4,000,000

Annual Costs & Expenses 3,500,000 (including an equipment-replacement allowance in lieu of depreciation)

4.0

Pretax Cash Flow from Operations 500,000

Figure Cash Flow Hoth Operations 500,000

Value of the Operations \$2,000,000

Illustrative Purchase-Price Allocation*

Derived Multiple of Pretax Cash Flow

| | | <u> I ax-Deductible Amortization</u> | | | | |
|-------------------|-------------|--------------------------------------|-------------|--|--|--|
| Deal Item | Allocation | <u>Years</u> | \$ Per Year | | | |
| Intangible Assets | \$2,000,000 | 15 | 133,333 | | | |
| Stock | | | | | | |

\$2,000,000

Illustrative Debt Financing

Debt Principal \$2,000,000 (100% of the deal, for purposes of this illustration)

Interest Rate 9.0%

Years To Liquidate the Acquisition Note 6.20

Detail by Year

Total

| • | 1 | 2 | 3 | 4 | . 5 | 6 | 7 | 8 |
|---|-----------|-----------|-----------|-----------|---------|---------|---------|---------|
| Cash Flow from Operations | 520,000 | 540,800 | 562,432 | 584,929 | 608,326 | 632,660 | 657,966 | 684,285 |
| Growth Rate | 4.0% | 4.0% | 4.0% | 4.0% | 4.0% | 4.0% | 4.0% | 4.0% |
| Debt at Beginning of Year | 2,000,000 | 1,756,667 | 1,488,273 | 1,192,990 | 868,869 | 513,836 | 125,688 | 0 |
| Addition to Working Capital | 14,000 | 14,560 | 15,142 | 15,748 | 16,378 | 17,033 | 17,714 | 18,423 |
| Cash Flow Available for Debt Service & Taxes | 506,000 | 526,240 | 547,290 | 569,181 | 591,948 | 615,626 | 640,251 | 665,861 |
| Interest Payment | 180,000 | 158,100 | 133,945 | 107,369 | 78,198 | 46,245 | 11,312 | 0 |
| Tax-Deductible Amortization | 133,333 | 133,333 | 133,333 | 133,333 | 133,333 | 133,333 | 133,333 | 133,333 |
| Taxable income | 206,667 | 249,367 | 295,154 | 344,227 | 396,795 | 453,081 | 513,321 | 550,951 |
| Tax (@40%) | 82,667 | 99,747 | 118,062 | 137,691 | 158,718 | 181,232 | 205,328 | 220,380 |
| Principal Payment | 243,333 | 268,393 | 295,283 | 324,121 | 355,032 | 388,149 | 125,688 | 0 |
| Debt at End of Year | 1,756,667 | 1,488,273 | 1,192,990 | 868,869 | 513,836 | 125,688 | 0 | 0 |
| | | | | | | | | |

^{*}Tangible assets are not included in this illustrative allocation, since depredation charges are assumed to be covered by capital-equipment allowances included in the calculation of operating cash flows.

Post-Acquisition Cash Flows & Debt Liquidation in an Asset Deal

The Subject Company

Annual Operating Revenue \$4,000,000

Annual Costs & Expenses 3,500,000 (including an equipment-replacement allowance in lieu of depreciation)

Pretax Cash Flow from Operations 500,000

Derived Multiple of Pretax Cash Flow 4.6

Value of the Operations \$2,305,000 15.3% Higher than Stock Deal

1

lilustrative Purchase-Price Allocation*

Tax-Deductible Amortization

<u>Deal Item</u> <u>Allocation</u> <u>Years</u> <u>\$ Per Year</u> Intangible Assets \$2,305,000 15 153,667

Stock --

Total \$2,305,000

Illustrative Debt Financing

Debt Principal \$2,305,000 (100% of the deal, for purposes of this illustration)

interest Rate 9.0%

Years To Liquidate the Acquisition Note 7.11 Same as the Stock Deal

Detail by Year

| · · · · · · · · · · · · · · · · · · · | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | |
|---|-----------|-----------|-----------|-----------|-----------|---------|---------|---------|--|
| Cash Flow from Operations | 520,000 | 540,800 | 562,432 | 584,929 | 608,326 | 632,660 | 657,966 | 684,285 | |
| Growth Rate | 4.0% | 4.0% | 4.0% | 4.0% | 4.0% | 4.0% | 4.0% | 4.0% | |
| Debt at Beginning of Year | 2,305,000 | 2,070,003 | 1,810,397 | 1,524,375 | 1,210,015 | 865,271 | 487,967 | 75,785 | |
| Addition to Working Capital | 14,000 | 14,560 | 15,142 | 15,748 | 16,378 | 17,033 | 17,714 | 18,423 | |
| Cash Flow Available for Debt Service & Taxes | 506,000 | 526,240 | 547,290 | 569,181 | 591,948 | 615,626 | 640,251 | 665,861 | |
| Interest Payment | 207,450 | 186,300 | 162,936 | 137,194 | 108,901 | 77,874 | 43,917 | 6,821 | |
| Tax-Deductible Amortization | 153,667 | 153,667 | 153,667 | 153,667 | 153,667 | 153,667 | 153,667 | 153,667 | |
| Taxable Income | 158,883 | 200,833 | 245,830 | 294,069 | 345,758 | 401,118 | 460,382 | 523,797 | |
| Tax (@40%) | 63,553 | 80,333 | 98,332 | 117,628 | 138,303 | 160,447 | 184,153 | 209,519 | |
| Principal Payment | 234,997 | 259,606 | 286,022 | 314,360 | 344,744 | 377,305 | 412,182 | 75,785 | |
| Debt at End of Year | 2,070,003 | 1,810,397 | 1,524,375 | 1,210,015 | 865,271 | 487,967 | 75,785 | 0 | |
| | | | | | | | | | |

^{*}Tangible assets are not included in this illustrative allocation, since depreciation charges are assumed to be covered by capital-equipment allowances included in the calculation of operating cash flows.