



THE INSTITUTE OF BUSINESS APPRAISERS, INC.

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In Support of Unsupportable Rates

Shawn M. Hyde, CBA and Paul R. Hyde, EA, MCBA, BVAL, ASA

Business appraisers have, over the years, greatly improved our methodologies and understanding of the same in our pursuit of Fair Market Value. Our industry is constantly evolving as new methods and data become available. However, due to its apparent ease of application and authoritative source in Revenue Ruling 68-609, the Excess Earnings Method is very often applied by the inexperienced incorrectly. We all know the problems inherent in this method, the difficulty in obtaining equipment and/or real estate appraisals, obtaining and supporting the Rate of Return on the Tangible Assets, and finally (our favorite) how to support the Rate of Return on the Intangible Assets of a company.

The Excess Earnings Method, because of its popularity among non-appraisers, (some judges require it) will always find its way into our assignments. We will either be critiquing another's work or actually using it in some of our own. In our practice, we run into the incorrect application of the Excess Earnings Method quite often, and rather than explain on the stand why the other appraiser goofed, we prefer to incorporate it in our reports correctly and let the attorneys hash the differences out. We actually call it a sub method to the Adjusted Book Value (ABV) Method. The ABV method generally doesn't take into account any intangible asset value that smaller companies may have. The following illustrates the actual application of the Excess Earnings Method in one of Shawn's appraisals (the company's name has been changed):

EXCESS EARNINGS METHOD

Forecasted Net Cash Flow - 12/31/2003 33,252

Return on Net Tangible Assets:

Value of Net Tangible Assets (Equity from Adjusted Book Value Method)	132,495	
Rate of Return on Net Tangible Assets	x 8.9%	
Less: Actual Return on Net Tangible Assets	<u>11,845</u>	
Excess Earnings (amount to be applied to value the Intangible Assets)	21,407	

**Capitalization of Excess Earnings
to Value Intangibles:**

Excess Earnings (from above)	<u>21,407</u>	=	52,136
Rate of Return on Intangible Assets	41.1%		
Value of Intangible Assets:			52,136

In Support of Unsupportable Rates

As shown, the Rate of Return on Tangible Assets was determined to be 8.9% and the Rate of Return on Intangible Assets was 41.1%. (We prefer to use rates to one decimal point. This could be perceived as being too precise, however it does show that they were not simply pulled from the air). The Rate of Return on Tangible Assets was calculated by listing each of the tangible assets shown on the company's balance sheet, estimating a rate of return for each of them, and weighting each rate of return based on the percentage each asset occupies of the total. For example, cash is 18.2% of the total assets of the company. The estimated rate of return on cash is 2.5% based on what money market accounts usually pay. The rate of return on accounts receivable is estimated at 8.0% based on the estimated cost of financing them (assuming a loan could be obtained). The same goes for inventory and fixed assets. The risk of loaning against those items increases so the return increases. The chart below shows how the final rate was calculated and is based on the chart David Bishop uses in the IBA 8 – Day Workshop 8001 course he developed for the Institute of Business Appraisers to determine the Rate of Return on Tangible Assets.

Rate of Return on Tangible Assets

	Amounts from ABV Method	Percentage of Total	Estimated Rate of Return	Weighted Rate of Return
Cash	32,602	18.2%	2.5%	0.5%
Accounts Receivable	9,005	5.0%	8.0%	0.4%
Inventory	100,519	56.3%	10%	5.6%
Total Fixed Assets	<u>36,549</u>	20.5%	12%	<u>2.5%</u>
TOTAL	<u><u>178,675</u></u>	100%		<u><u>8.9%</u></u>

The Rate of Return on Tangible Assets is a little easier to support when it's broken down like this into its individual parts. Each estimated rate of return can be compared to rates that are actually charged in the market place. One could also explain the unlikelihood of borrowing 100% against any of the assets value, except maybe cash, to support the increasing rates.

The best part comes next! How to support the rate chosen to capitalize the Excess Earnings? The following table shows how we do it.

Rate of Return on the Intangible Assets

By definition, the Rate of Return on Intangible Assets must be higher than the Discount Rate (the rate used as a rate of return for the entire company under the income approach). Therefore, the Discount Rate should fall in-between the Return on Tangible Assets and the Return on Intangible Assets. The difference between the Discount Rate and the Rate of Return on Intangibles we call the Premium for Intangibles, and is the most difficult part to estimate. The size of the Premium for Intangibles is dependent on the amount of tangible assets in the business, as shown in the following chart.

In Support of Unsupportable Rates

Discount Rate - From Build Up Method 25.0%
 Rate of Return - Tangible Assets 8.9%

Difference between the Discount Rate and
 the Rate of Return on Tangible Assets 25.0% minus 8.9%= 16.1%

	Spread	Premium for Intangibles	Plus: the Discount Rate	Rate of Return on Intangibles
Very Few Tangible Assets	166%	26.7%	25.0%	51.7%
Moderate Level of Tangible Assets	100%	16.1%	25.0%	41.1%
High Level of Tangible Assets	66%	10.6%	25.0%	35.6%

The smaller the amount of tangible assets in a company, the higher the Premium for Intangibles. If the asset level of the company is fairly moderate, than the Premium for Intangibles will be closer to the difference between the Discount Rate and the Rate of Return on Tangible Assets. If the company really has a lot of hard assets, the Premium for Intangibles becomes less.

The Muffler Shoppe, Inc. is considered to have a moderate level of tangible assets so the selected Rate of Return on Intangible Assets for the company is **41.1%**

The Spread, as used in the above chart, is defined as the estimated adjustment to the Difference between the Rate of Return on Tangible Assets and the Discount Rate needed to calculate the Premium for Intangibles. Each amount of the Spread is based on the appraiser's estimate of risk associated with investing in a company with each respective level of Tangible Assets.

This chart should be explained further. The whole assumption behind this chart is that the intangible assets are inherently more risky an investment than the entire company. The Discount Rate developed under the income approach is listed as the point where the Rate of Return on the Intangible Assets of a company should start. (One could argue that the starting point should be the Capitalization Rate instead of the Discount Rate. We have considered both options and feel more comfortable using the Discount Rate.) This hopefully brings home the fact that the Discount Rate is **NEVER** equal to the rate used to capitalize the Excess Earnings. (Which is a common error seen many times.) The additional amount that should be added to the Discount Rate to account for the added risk of applying the rate to only intangible assets, we call the Premium for Intangibles, the calculation of which is the main purpose of the chart.

We show three different categories, Very Few Tangible Assets, Moderate Level of Tangible Assets, and a High Level of Tangible Assets. The first column is labeled "Spread", and lists different percentages that we apply to the Difference between the Rate of Return on Tangible Assets and the Discount Rate, which in this case is 16.1%, to calculate our Premium for Intangibles. We increase the Spread that applies to Very Few Tangible Assets to 166% which we feel is enough to account for the increased risk. What this chart is saying is that the more tangi-

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ble assets a company has in relation to the net cash flow it generates, the lower the risk is to invest in only the intangible assets. This works because if the amount of assets increases in the Excess Earnings Calculation, the amount of the actual Excess Earnings drops and so does the value of the intangibles. After creating this chart, it still falls to the appraiser to determine which level of assets applies to the subject company. There is still quite a bit of subjectivity in this method but we believe that it gives us something a little firmer to hang our hat on rather than the old standby, "Based on the appraiser's experience..."

The following table shows the end result of how the Excess Earnings Method is incorporated into the Adjusted Book Value Method:

ADJUSTED BOOK VALUE METHOD - INCLUDING VALUE OF INTANGIBLE ASSETS

Estimate of Value of Tangible Assets from Adjusted Book Value Method	132,495
Estimate of Value of Intangible Assets from Excess Earnings Method	<u>52,136</u>
Estimate of Value - The Muffler Shop, Inc.	<u><u>184,632</u></u>

We apply the Excess Earnings Method as a sub method to the ABV method instead of the other way around simply because the IRS in developing the Excess Earnings Method never indicated anywhere that an appraiser could add the tangible assets back to the estimated value of the intangible assets to value the whole company. This gives us brownie points for our application of the Excess Earnings Method when we point out that the other appraiser used it to value the whole company when it was only developed to value intangibles.

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