Income as a Predicate for Outcome

Without question, the most common approach to the valuation of closely-held companies involves the use of income – as contrasted with the cost or market approaches. Thus, logically the single most important number in doing an income approach is the starting point – the income that is to be used.

Since the income figure is all that important, it is crucial to understand how income is chosen. This article will not focus on the forensic accounting that results in adjustments to determine income. Rather, this article starts with the results of the forensic accounting – the restated income, say for five years. This is fairly common and familiar to our readers. The issue becomes how to use those five years of reconstructed income. Do we take just the most recent year, a straight average of the five years, a forward weighted average, a reverse weighted average, do we disregard one or more years and then take an average of some kind? This is an often overlooked and underappreciated aspect of the judgment call and professionalism demanded of the valuation expert. A few simplified examples will very clearly illustrate this point.

Let us assume that the results of the forensic analysis reveal that the subject company has had net income for the past five years (the most recent year stated first) of $500, $400, $300, $200 and $100. You can add zeros to your hearts content to make it fit the size business you would like. The straight average of those five years is $300; the weighted average (putting the most weight on the most recent year and then less weight progressively on each of the older years) is $367. Consider our choices:

  o Straight average – a simple concept, suggesting that each of the years is of equal relevance. If subject to a rigorous challenge, would it hold? Is it reasonable to assume that a business which shows steady increases, for purposes of projecting income going forward upon which a valuation will rely, should use an income level of three years ago?

  o By somewhat the same logic, would you use a weighted average of $367. This brings the number being used closer to the current year's income, and gives proportionally greater weight to the more recent years. The theory is that in general, the most recent years are more relevant to the future than the older years.

o   Or, would you use only the most recent year, arguing that the older years have set the stage for where this business is going, and that the trend weighs heavily against using income that has already been surpassed and, based on the trend, no longer relevant to the business?

This is obviously a critical issue that must be addressed in an unbiased fashion.   Simple arithmetic suggests that, all other things being equal, using $500 would result in a value 70% greater than using $300, and 40% greater than as compared to $367; or using $367 as compared to $300 will result in a value difference of over 20%.

Assume for the moment the same set of numbers, but reversed – the company's income is on a downward slope, with the most recent year $100, and the prior years progressively $200, $300, $400 and $500.   The same stream of logic applies here, only in reverse.   The essential question is why consider an average (and there can be some very good reasons) when the subject business's trend suggests that what was reality is no longer relevant?

The preceding was almost too easy.   Let us assume the same set of numbers but let's shuffle the deck – the income stream for five years shows $300, $400, $100, $500, $200.   It really does not matter whether those five years are from the most recent back or from the oldest forward – there is simply no pattern, no apparent predictability to those numbers.   We still have the same type of questions – do we use a straight average, a weighted average in one direction or the other, or some other assumption?   Since no trend is evident, it might be logical that an average must be used, and that probably it would be a straight average rather than any kind of a weighted average.   A weighted average gives greater weight to certain (generally the most recent) years.   In this example there might be an argument that there is no logic in giving any one year more weight than any other year.

Let us make life a little more complex – of our five years, one or two are outliers.   Interestingly, if more than two years are outliers, we would have no outliers because there would be nothing against which to benchmark.   Let us assume that the five years at hand, starting with the most recent and going back, are $200, $300, -$500, $400 and $100.   The essential issue to be addressed is do we disregard the one clear outlier year (the middle year with a negative) or not?   The argument in favor of dropping that year is that it is clearly an outlier – not only is it the one year with a loss, but it is several hundred away from any of the other years.   Thus, it would be appropriate to disregard that outlier year, and use the remaining four to determine whether you were going to do an average or whatever.   On the other hand, one might argue (presuming that one has a foundation for this argument) that this business is cyclical, that every few years a loss is to be

expected, and thus that one outlier year cannot be ignored. The illustration presented takes advantage of using a clearly outlier year – it would hardly be unusual to have a tighter range of income and losses, and therefore a judgment call that is not so obvious as to whether or not a year is an outlier.

It is one step further to consider a situation where there are two large loss years instead of one. Would we now have two outliers to disregard – or would the presence of two large losses suggest no outliers, but likely an expected greater fluctuation in the income stream from year to year. Further, would that conclusion vary if the large loss year (or years) was the most recent or the second most recent as contrasted with an older year. This exercise becomes all the more difficult when the so-called outlier is the most recent year. One line of argument might suggest that it is not an outlier, but rather a new standard going forward. There are no simple answers to these issues – but they warrant discussion and analytical support for whatever conclusion is reached.

Thus, beyond the obvious that the choice of income for determining the value of a business is important, we can have the complex issue of how to pick the appropriate (and there can be more than one appropriate – depending on interpretation) income stream when there might be no single clear cut answer. Whatever figure is used, whatever kind of average is chosen, whatever judgment calls are made – it is appropriate to expect, to demand, that there be an explanation and logic for any such subjective conclusion.

There is at least one further complicating tangent to consider. When using income to make a determination of value, we do so by applying a capitalization rate (or multiple) to the determined income stream. That cap rate is a reflection of risk – risk as to the likelihood that income stream will continue. A high cap rate (a low multiple) is a reflection of relatively greater risk as to that income stream continuing. Conversely, a low capitalization rate (a high multiple) is an indication that the appraiser has determined there is relatively lesser risk as to that income stream continuing.

Thus, it might be conceptually valid to use two different income streams and two different capitalization rates – for the same business, for the same grouping of incomes and for the same valuation. To illustrate, consider the first example in this article – the most recent five years of income, starting with the most recent year and going back, were $500, $400, $300, $200 and $100. Assume the appraiser has determined that the appropriate income going forward is most likely either a weighted average ($367) or the most recent year ($500). However, the appraiser is not comfortable that either one of these is more reliable than the other – while the trend shows $500, there is concern that the trend may not continue, it may level off, it

may settle down a bit. On the other hand, a weighted average of $367 might be giving too much credit to the past and not enough respect to what is likely in the future. We might address these concerns by the use of two different capitalization rates.

Assume it is reasonable that a weighted average of $367 is less risky than the use of a $500 trend. Or, from the other angle, the use of $500, while considered sound business valuation theory, carries with it greater risk (it is the highest year and relies on the trend continuing) than the use of a weighted average of $367 which is not so reliant on the trend continuing. Therefore, the approach to value might be to use, by way of example, either a 16% cap rate (a multiple of 6 ¼) on the weighted average $367 – resulting in a value of $2,294; or a cap rate of 20% (a multiple of 5) on the trending $500 – resulting in a value of $2,500. Since these figures are close, the valuation expert would typically average them, resulting in a determination of value of $2,397. These involve subjective interpretations – what you call upon the valuation expert to exercise. An alternative would be to indicate that, rather than a single number conclusion, the range of value is between $2,294 and $2,500. That would not be unreasonable.

The critical issue is the appropriate income to be employed in the determination of value. There is a significant amount of expertise and judgment call required to conclude appropriately.