Dangers of Relying on a single period Capitalized Cash Flow Method

There are three approaches to valuing businesses: the income approach, market approach and asset approach. Each of these approaches has various methods within each of the approaches that the business appraiser can consider in performing a valuation. This article focuses on the income approach. Under the income approach, the business appraiser can use the capitalized cash flow method ("CCF") or the discounted cash flow method ("DCF"). Each method can be prepared on an invested capital method or the equity method.

Both methods require the business appraiser to determine an expected future benefit stream (the numerator) and a rate of return (the denominator). Under the CCF method, a single future benefit stream and a single rate of return are determined by the business appraiser. Under the DCF method, several expected future benefits are projected over a number of years and then, assuming the future benefits have stabilized after the projected years, a single future benefit is determined into perpetuity (terminal value). Generally, the CCF method is used when earnings have stabilized while the discounted cash flow method is used when earnings are not stable.

There are many DANGERS when relying on the CCF method:

Earnings have not stabilized. When applying the CCF method, one level of earnings, or cash flows, is used. Many factors can impact the future earnings level including loss of a major customer, loss of key personnel, economic impacts, industry changes and changes in competition. All of these factors can have a dramatic change in earnings levels. By assuming earnings have stabilized and therefore, using one level of earnings and adjusting only for growth will not consider any of these factors and could potentially over or understate value.

Risk rate will change. The rate of risk (cost of capital) is derived from the current risk free rate and adjusted for equity risk in the stock market, size, industry and specific risk to the particular business being valued. The specific risk can include customer concentration, key person risk, supplier risk, environmental risks and other miscellaneous risks. By using the capitalized cash flow method, one rate of risk is used, forever. Considering all of things that make up the risk rate, odds are it's going to change.

Average growth of the business will change. In applying the capitalized cash flow method, a single growth rate is assumed. In other words, the business being valued is expected to grow by the same percentage, say 3%, year after year, info perpetuity. There is no consideration for variances in growth from year to year for new product lines, increased prices, loss of customers, competition, changes in the mix of expenses, impact on the business due to economic changes or many other influences. All these variances are lumped into one estimated growth rate.

Debt to equity ratio will change. When using the CCF method to determine the fair market value of invested capital (equity plus interest bearing debt), a blended rate of risk, based on the portion of interest bearing debt and equity, is calculated. This rate is referred to as WACC, or weighted cost of capital. Generally, the cost of debt is much lower than the cost of equity. In other words, equity investors require a higher rate of return since their investment is not secured by the assets of the business.

For example, if the cost of equity is 20% and the cost of debt is 4% after tax and the interest bearing debt and equity are each 50% of the total invested capital, the WACC rate is 12% (50%*20% plus 50%*4%). If the debt ratio changes to 75% debt and 25% equity, the WACC rate is 8% (25%*20% plus 75% of 4%). The higher the interest bearing debt ratio to the total, the lower the risk rate and the higher the value of invested capital. A wrong assumption of the percentage of interest bearing debt to invested capital can create a significant variance in value.

Capital expenditures will vary. Part of projecting future expected benefits or cash flows is determining the amount of future capital expenditures. The CCF method assumes one amount for capital expenditures forever. Machinery and equipment can breakdown and need replaced, technology equipment including computers can become obsolete sooner than expected, new equipment can be needed for new products and a downturn in the economy are all reasons why capital expenditures can change each year. Under or over estimating capital expenditures can have an impact on the business valuation.

Working capital needs will vary. Estimating working capital needs is also a part of determining the amount of future cash flows. The CCF method assumes one amount for working capital increases. Just like capital expenditures, there are many reasons why working capital needs will change. This too can have an impact on the business valuation.

In summary, the CCF is more sensitive to errors. The capitalized cash flow method only gives the business appraiser one chance to get expected future benefits and the rate of return right. An error in either one can really distort the value. When applying the DCF method, there are many more assumptions throughout the calculation, giving the business appraiser a better chance of balancing various over and understatements of expected future benefits, growth, rate of risk, capital expenditures and working capital needs.