



Weighted Average Cost of Capital

In a previous issue, I talked about determining the cost of capital by using what is called the Build-up Method. The Build-up Method is only one of several ways to determine the cost of capital. One drawback to this method is that it does not take into account debt. To take into account debt, I turn to the Weighted Average Cost of Capital Method (WACC).

Where the Build-up Method only accounts for equity, the Weighted Average Cost of Capital takes into both the equity and debt invested. The Weighted Average Cost of Capital is based on the theory that most businesses, as well as buyers, finance a business with both equity and debt.

The process of determining the Weighted Average Cost of Capital, requires us to use the **market value**, or at least an estimate, of the capital that is used by the business. Take note that it is the market value and not the book value used. It is not difficult to determine the market value of bank financing. Most of the time we can use what is on the balance sheet as market rate, for obvious reasons. What is more difficult, is to determine what the market rate is for the equity. After all, if we knew this, would we need to be appraising the business? In order to determine the market rate of equity, I use an iterative process for estimating the market value of the equity.

The iterative process is composed of eight steps:

1. Estimate the market value of senior securities. This dollar amount holds constant throughout the process.
2. Determine the market value weights of the senior securities from Step 1 and the common equity.
3. Using the estimates from Steps 1 and 2, the first calculation for the WACC can be made.
4. Project the net cash flow to invested capital.
5. Using the WACC calculated in Step 3, and the net cash flow to invested capital projected in Step 4, calculate the first approximation of the market value of invested capital (MVIC).
6. Subtract the market value of senior securities in Step 1 from the MVIC calculated in Step 5 to approximate the value of the common equity.
7. Determine the weights (as you did in Step 1) of the capital structure, using the equity value from Step 6.
8. Repeat the process, starting with Step 3. Repeat until the market value weights are reasonably close to the weights used in calculating the WACC.

If the obvious has not hit you yet, it is simply a matter of guessing (the appraisal industry likes to refer to it as estimating) until you get the answer.

The cost of capital theme will continue in next month's issue. However, it will be in a little different light as we will discuss matching the cost of capital with a particular revenue stream.

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