

## 10.9: Capital Structure

It is important to note that the firm can influence its cost of capital by altering the weights of their financing mix. Specifically, they can use more debt financing (issue bonds, buy back stock, pay higher dividends to reduce internally generated capital, etc.) or use more equity financing (buy back bonds, issue more common stock, pay fewer dividends to increase internally generated capital). Changing this mix (referred to as capital structure) will change the firm's cost of capital. At first glance, we might think that using more debt financing is always better. This is because debt financing (due to the interest tax shield of debt and the idea that bonds are less risky for investors) is a cheaper source of financing than common stock (equity) financing. However, while bonds are less risky than stocks from the perspective of the investor, using debt financing actually increases the risk of the firm. The reason for this is that firms have to be able to make interest payments or bondholders can force the firm into bankruptcy. On the other hand, dividends are optional. While firms are reluctant to cut dividends, they can do so when faced with financial distress in order to stay solvent.

There are two counterbalancing forces when firms alter their capital structure. Initially, using debt can lower the firm's cost of capital by taking advantage of the lower-cost characteristics of debt financing (relative to equity). However, if too much debt is taken on, the increased risk of the firm will cause the cost of equity and the cost of debt to rise (as investors demand higher compensation for investing in a riskier firm) and start to cause the cost of capital to rise. Therefore, the optimal mix of debt vs. equity (capital structure) is the level at which the cost of capital is minimized. When this occurs, the value of the firm (shareholder wealth) will be maximized. This level will vary from firm-to-firm. For example, firms that are very profitable with high effective tax rates and also very stable will tend to find their optimal capital structure having higher debt levels (they get more of the tax benefits of debt and the risk of additional leverage is lower due to the predictable cash flow generation). On the other hand, firms that are less profitable, face lower effective tax rates, or have higher levels of business risk will tend to find that their optimal capital structure involves less debt (they get less tax benefits of debt and are more susceptible to the higher risk of additional leverage).



One final note here is that the target capital structure is more of a range than a precise point. Because it is hard to estimate the exact optimal mix for each firm and because weights (based on market values) are constantly fluctuating, most firms try to identify a range where their cost of capital is near the minimum point and, in turn, the value of the firm is near the maximum point. The following diagrams illustrate the capital structure issue graphically.

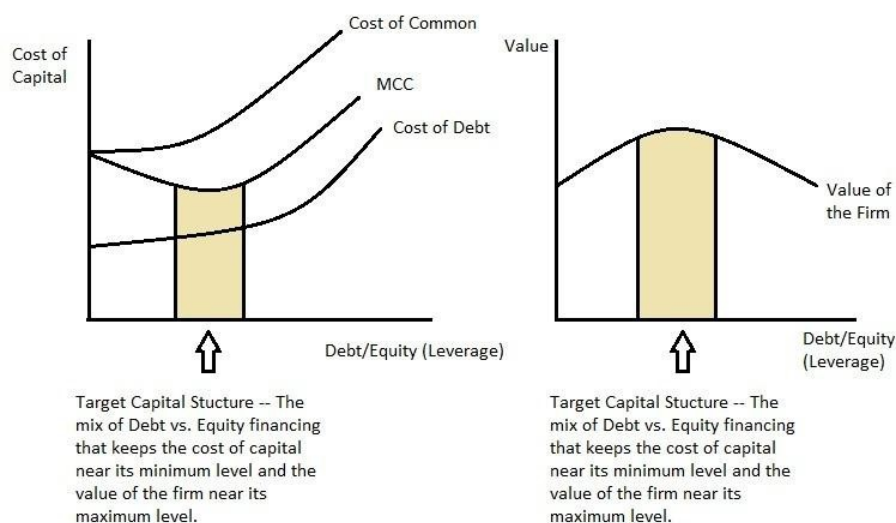


Figure 10.9.1: How to use the target capital structure to keep the cost of capital near its minimum

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