Capital Structure Considerations

by Sophia

WHAT'S COVERED

In this lesson, you will learn about the effects of capital structure decisions. Specifically, this lesson will cover:

1. Capital Structure

Capital structure is the way a business has elected to finance the assets it needs for operations. The two ways it can do this are through:

- Issuing equity, such as common stock shares
- Taking on debt, like bonds or other long-term debt

IN CONTEXT

Suppose a firm has sold $40 billion in equity and $120 billion in debt. We would say that the firm is 25% equity-financed and 75% debt-financed. This ratio of debt to total financing is also referred to as the firm's leverage.

HINT

There can also be hybrid securities in the capitalization which have characteristics of both equity and debt, such as preferred stock.

TERM TO KNOW

Capital Structure
The way that a corporation finances its assets through some combination of equity, debt, and hybrid securities.

2. Cost of Capital

One of the major considerations that overseers of firms must take into account when planning out capital structure is the cost of capital. For an investment to be worthwhile, the expected return on capital must be greater than the cost of capital. The **cost of capital** is the rate of return that the capital could be expected to earn on another investment with the same risk.

- For common stock, it is the required return on the stock.
- For bonds, it is the yield to maturity discounted for taxes.

Since a company's securities include both debt and equity, the cost of debt (R_d) and the cost of equity (R_e) are included in the calculation for the cost of capital. The weighted average cost of capital multiplies the cost of each security by the percentage of total capital taken up by the particular security, and then adds up the results from each security involved in the total capital of the company.

IN CONTEXT

Suppose a company has $140 million in total debt and $50 million in total equity. The coupon payment for the cost of debt is 6% and the required rate of return from the market on the equity is 8%. The corporate tax rate of 40% also needs to be taken into account because the interest payments on our bonds (the debt) are tax-deductible for corporate taxes.

What is the weighted average cost of capital for this company?

Weighted Average Cost of Capital Calculator	
Total Debt (D)	140
Total Equity (E)	50
Cost of Debt (R_d)	6%
Cost of Equity (R_e)	8%
Corporate Tax Rate (T_c)	40%
Weighted Average Cost of Capital (WACC)	4.758%

Using a web app that calculates the weighted average cost of capital, we find the WACC to be 4.758% – so, less than 5%.

TERM TO KNOW

Cost of Capital
The rate of return that capital could be expected to earn in an alternative investment of equivalent risk.

3. Leverage

This brings the question to management of how much of the capitalization should be equity and how much should be debt. The fact that debt interest paid is not taxable is a tendency to favor debt. However, the amount of **leverage** through debt could increase to the point where risk increases the required rate of return on the debt. So, the decision rests on focusing on this trade-off when choosing how much debt and how much equity should be used in capitalization.

It is reasonable to think the firms would use much more debt than they actually do in reality. The reason they do not is because of the risk of bankruptcy and the volatility that can be found in the credit markets. This volatility increases, particularly when a company tries to take on too much debt.

TERM TO KNOW

Leverage
The use of borrowed funds with a contractually determined return to increase the ability of a business to invest and earn an expected higher return (usually at high risk).

SUMMARY

In this lesson, you learned that the **capital structure** is the amount of the total capitalization of the firm financed by equity and the amount financed by debt. There can be a presence of hybrid capitalization as well.

You also learned that the **cost of capital** is one of the main considerations of capital structure. Cost of capital is the rate of return that the capital could be expected to earn on another investment with the same risk and can be calculated using the WACC.

The amount of debt used by a firm is characterized as its **leverage**. The cost of that can be lessened because interest payments are tax-deductible. The advantage it gives can be lessened if the level of debt becomes too high, thereby raising the associated risk of bankruptcy.

Best of luck in your learning!

TERMS TO KNOW

Capital Structure
The way that a corporation finances its assets through some combination of equity, debt, and hybrid securities.

Cost of Capital
The rate of return that capital could be expected to earn in an alternative investment of equivalent risk.

Leverage
The use of borrowed funds with a contractually determined return to increase the ability of a business to invest and earn an expected higher return (usually at high risk).