

# the cost of capital

Key Financial Concepts (I) - Understanding what return you should be making on your money

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## In brief

You don't have to be a genius to apply basic financial yardsticks to your business. Many people glaze over when they hear terms like weighted average cost of capital. Yet they are extremely simple concepts and have a valid application to the most basic of businesses.

In this module, we will not be concerned with complicated analysis of each and every term. The aim is to make it clear what these concepts are so that you understand their implications when they are raised by management, or so that you can see for yourself that they really very simple. Like most things you learn doing an MBA, when the terminology is stripped away, they are basically common sense.

In the next few pages we will look at the following concepts:

- Risk Free Rate of Return
- Cost of Debt
- Cost of Equity
- Weighted Average Cost of Capital
- Return on Capital

Collectively, they lead you to simple rules about how to create financial value.



## What is the Risk Free Rate of Return

In theory there is no such thing as a risk-free return. There is always a chance that something will go wrong. Nonetheless, any return must be judged against some yardstick. In financial theory, analysts go for the nearest thing to a safe bet.

The most common is the interest rate that applies to short term government bonds or treasury notes, on the basis that governments are least likely to go broke. Some do, but most don't. The reason short term investments are used is that you can get your money back before rates have had time to change much while the money is invested.

The point is that if you hold cash, you can probably put it into some safe, short term, investment and get a return. In reality, the risk free rate of return is the interest rate you get by putting it in that safest, hassle-free, sleep-at-night investment. It is the most basic of yardsticks. It is a low rate because it is low risk.

The risk free rate of return is the minimum bar that any investment has to hurdle if the investment is to make any sense at all. Say three-month term deposits are paying 5% per annum. If you have \$100,000 and you are going to invest it, then it has to make at least 5% per annum. Otherwise you might as well put it in the bank. In the examples used in this module, we will assume it is 5% and note it accordingly:

**Risk Free Rate of Return = 5%**



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## What is the Cost of Debt?

If you don't have \$100,000 to invest and that is the amount you need, you will have to borrow it. Whoever is going to lend it to you is going to want at least the risk free rate of return. And because there is now a chance you will not pay it back, they will most likely want more. They therefore add what is called a Risk Component. This is to cover the risk to them of you defaulting. The cost of debt can be expressed as follows:

$$\text{Cost of Debt} = \text{Risk Free Rate of Return} + \text{Risk Component}$$

If you are financing your business with debt, you now have a higher hurdle. Say a bank will lend you this money at its overdraft rate. In this example, we will say that rate is 8.75%. In that case, the cost of your debt will be made up as follows:

$$\text{Cost of Debt} = \text{Risk Free Rate of Return (5\%)} + \text{Risk Component (3.75\%)} = 8.75\%$$

Your business will now have to generate a return of 8.75% or better, otherwise it is not worth doing.



## What is the Cost of Equity?

Say you do have \$100,000 in cash and you decide to invest it as equity in your business. Or alternatively you find someone else who is willing to invest that amount as equity. What sort of return should that equity get? Again, we take the Risk Free Rate as the basic minimum, but because equity is far more risky (you can actually lose the lot), we have to add a different component to the cost. This is called the Equity Risk Premium. For the Cost of Equity, the equation is expressed as:

$$\text{Cost of Equity} = \text{Risk Free Rate of Return} + \text{Equity Risk Premium}$$

The equity risk premium is a more rubbery concept because often you don't really know what it is. Still, it must be considered as part of the cost of capital because it is the amount you could earn if, say, you invested the money in the shares of a listed company in a similar business. Imagine those shares rose 10% in a year and paid a dividend of 4%. The total return would be 14%. 5% would be accounted for by the risk free rate and the remainder would be the equity risk premium, as shown below:

$$\text{Cost of Equity} = \text{Risk Free Rate of Return (5\%)} + \text{Equity Risk Premium (9\%)} = \text{\$14\%}$$

If your business is financed entirely by equity, the hurdle is now higher still. You need to be making a return of 14%, otherwise theoretically you should be investing in the shares.



## What is the Weighted Average Cost of Capital?

Nothing particularly clever here. The Weighted Average Cost of Capital (WACC) means exactly what it says. On average, what is your cost of capital? Realistically, that is the hurdle your business needs to jump over for it to make commercial sense. It is expressed as:

$$\text{WACC} = \frac{\text{Cost of Debt}}{\text{Debt Capital}} + \frac{\text{Cost of Equity}}{\text{Equity Capital}}$$

To use a simple illustration, combine the two earlier examples into a simple company which is financed in equal weight by \$100,000 in debt at 8.75% and \$100,000 in equity at 14%. The average, or WACC, is 11.375%. That's the hurdle.

That leads to the last number you need to know. This is effectively a reality check. What is the actual Return on Capital (RoC) that you are generating?

$$\text{Actual RoC} = \frac{\text{Capital Employed}}{\text{Actual Return}}$$

Say the company in our example is generating a return of \$24,000 per annum on the \$200,000 of capital it employs. That's an actual RoC of 12%. The business has cleared the hurdle (it's WACC), if only just.



## Why does any of this matter?

The primary mission of any business is to optimise its value to shareholders over time. Value is a function of returns. It is a maxim of corporate finance theory that the greater the spread between your actual return (RoC) and your WACC, the greater the value of your business.

There is nothing clever about this. If you are getting more income from your capital than you are paying out for it, you are making money.

Simple as that may sound, it underlines the following rule:

**If  $RoC > WACC$ , Value  $\uparrow$**

**If  $RoC < WACC$ , Value  $\downarrow$**

If your business is generating a return that is higher than its WACC, it is creating value. If it is generating a return that is lower than your WACC, it is destroying value.



**For more information, visit my website [www.alanhargreaves.com](http://www.alanhargreaves.com)**

Hi, I'm Alan Hargreaves. I specialise in simplifying complex business problems. In over 35 years as a business executive, I have never found an issue that cannot be addressed through identifying the essential but simple steps required to make any problem manageable. It might be your career, your firm, your team or your strategy. It doesn't matter. All hurdles can be lowered through dispassionate analysis, and all executives can embrace simple processes to take them forward. Using these techniques, I have helped hundreds of people through the various stages of their business or career development. It may be the challenge of taking on new responsibilities; it could be the task of managing a business you have created yourself; it may be handling a difficult team in the midst of major change. I use a straightforward combination of key principles to get results: collaboration, adaptation, simplification and action. You can contact me anytime at [alan@alanhargreaves.com](mailto:alan@alanhargreaves.com).



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