

Capital Investments

Now that we see how to prepare the budget and review the variances, we want to learn how to make decisions on large investments of capital. This is a very important process as we want *every* major expenditure to be successful! There are a number of ways to project this and we will learn many of them today.

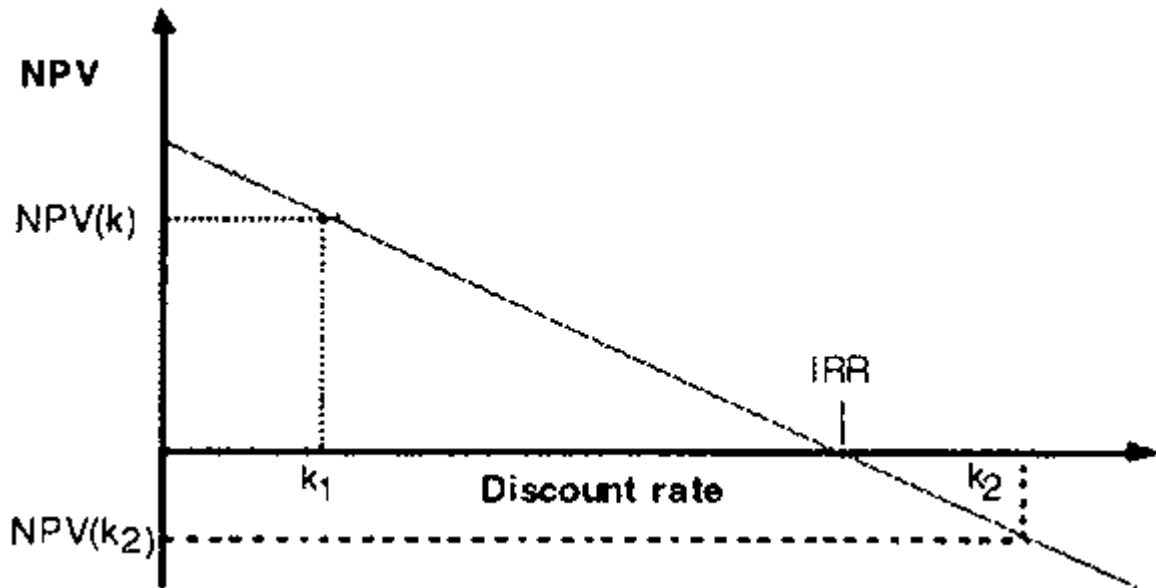
First let's talk about the time value of money. I'm sure you've all heard the expression that a bird in the hand is worth two in the bush. Or another one... a dollar today is worth more than a dollar tomorrow! These are all expressions to simplify the time value of money. When the certainty of getting your money is HIGHER, it is more valuable to you. Why wait a year to get that dollar? Many reasons that you wouldn't want to. First of all, you could earn interest on it if you received it today. Also, there is risk in waiting! Maybe the person who promised you the dollar will not have it next year. Maybe you won't know where to find them. So if someone expects you to wait for something they will/should compensate you with interest! In finance, we use the term PRESENT VALUE. PV tables show us how much we will earn in premiums for waiting at various rates of interest. These tables are available in the textbook, in EXCEL, on HP financial calculators and online.

The term "return on investment" is important to know. This is the rate that you expect to receive on an investment or cash outlay. You will need to determine this and then compare it to other rates that you can earn on your money. Net Present Value is the process of computing the present value of all the cash inflows and outflows. If this amount is "positive", then you will proceed with the project. Remember, you have already decided what interest rate that you are requiring and that is factored into this calculation:

Present Value of the Inflows minus Present Value of the Outflows = NPV

If NPV > 0 always accept the project

Another tool you might like is the Internal Rate of Return or IRR. To compute the IRR of a project/investment you just compute the NPV above. The IRR is when the NPV equals zero.



There are also some methods that ignore the time value of money. They are not as accurate of course, but they are fast and easy in a pinch! I do use them at work when I need an estimate for a quick decision. Then, if things progress I will do a full present value analysis. One of these methods is the payback period:

$$\text{Payback Period} = \text{net cost of the investment} / \text{annual net cash inflows}$$

As you can see, it just lets you know how long it will take you to recoup your investment. There is also the unadjusted rate of return. I do not use this one as frequently, but it is found in the reading.

Here are some of my favorite web sites that relate to this topic:

<http://www.teachmefinance.com/costofcapital.html>

<http://www.accounting-tutorial.com/wp-content/uploads/2011/06/accounting-cycle.png>

<http://www.investopedia.com/terms/n/npv.asp#axzz1iy3GBU5L>

** Video Alert**

I also found a really good video for you on Youtube. This introduces us to Present Values:

<http://www.youtube.com/watch?v=ks33IMoxst0>

Enjoy your week!

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Reference

Edmonds, T. Olds, P., McNair, F., & Tsay, B. (2012). *Survey of Accounting* (3rd ed.). New York, NY: McGraw-Hill Irwin.