

What is Present Value?



What is Present Value?

- ❖ Present Value is the financial equivalent to “a bird in the hand is worth two in the bush”

What is Present Value?

- ❖ The value of a pound in your pocket is worth more than a pound in a years time.

What is Present Value?

- ❖ You arrive at the present value of a pound by using a discount rate to discount it to the present day value

What is Present Value?

- ❖ The higher the discount rate, the lower the Present Value
- ❖ The Discount Rate is your desired Rate of Return or Hurdle Rate to judge whether or not to invest in the opportunity.

What is Present Value?

- ❖ If you invest your £1 today, it can be earning a return for you
- ❖ If you have to wait a year for that £1, then you miss the opportunity of earning that return

What is Present Value?

- ❖ We have discovered how to calculate a discount rate using the Capital Asset Pricing Model and the Weighted Average Cost of Capital

What is Present Value?

- ❖ Present Value can be represented in a formula
- ❖ FV = Future Value
- ❖ r = Rate of Return
- ❖ n = number of periods

$$\text{❖ } PV = FV / (1+r)^n$$

What is Present Value?

❖ We can of course turn this around to calculate Future Value

❖ $FV = \text{Future Value}$

❖ $I = \text{Investment Amount}$

❖ $R = \text{Interest Rate}$

❖ $t = \text{Number of Years}$

$$❖ FV = I \times (1 + R^t)$$

What is Present Value?

- ❖ Present Value is important because it allows us to calculate values in DCF modelling that take into account the time value of money.
- ❖ It enables a value to be arrived at by considering just the discount rate and the number of periods

What is Present Value?

- ❖ The PV calculation is also very useful when evaluating investment opportunities
- ❖ It enables direct comparison of different opportunities and enables us to set hurdle rates that we require the investment return to exceed.

What is Present Value?

- ❖ You should be aware that discount rates can vary for different investments
- ❖ In the real world investment returns may be eroded by inflation which reduces the value of money and this is very difficult to factor into the discount calculation.

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