

# [Discount rate essay](https://assignbuster.com/discount-rate-essay/)

The rate used to discount future cash flows to their present values is a key variable of this process. A firm's weighted average cost of capital (after tax) is often used, but many people believe that it is appropriate to use higher discount rates to adjust for risk or other factors. A variable discount rate with higher rates applied to cash flows occurring further along the time p might be used to reflect the yield curve premium for long-term debt. Another approach to choosing the discount rate factor is to decide the rate which the capital needed for the project could return if invested in an alternative venture.

If, for example, the capital required for Project A can earn five percent elsewhere, use this discount rate in the NPV calculation to allow a direct comparison to be made between Project A and the alternative. Related to this concept is to use the firm's Reinvestment Rate. Reinvestment rate can be defined as the rate of return for the firm's investments on average. When analyzing projects in a capital constrainedenvironment, it may be appropriate to use the reinvestment rate rather than the firm's weighted average cost of capital as the discount factor.

It reflects opportunity cost of investment, rather than the possibly lower cost of capital. An NPV calculated using variable discount rates (if they are known for the duration of the investment) better reflects the real situation than one calculated from a constant discount rate for the entire investment duration. Refer to the tutorial article written by Samuel Baker[3] for more detailed relationship between the NPV value and the discount rate. For some professional investors, their investment funds are committed to target a specified rate of return.

In such cases, that rate of return should be selected as the discount rate for the NPV calculation. In this way, a direct comparison can be made between the profitability of the project and the desired rate of return. To some extent, the selection of the discount rate is dependent on the use to which it will be put. If the intent is simply to determine whether a project will add value to the company, using the firm's weighted average cost of capital may be appropriate.

If trying to decide between alternative investments in order to maximize the value of the firm, the corporate reinvestment rate would probably be a etter choice. Using variable rates over time, or discounting " guaranteed" cash flows differently from " at risk" cash flows may be a superior methodology, but is seldom used in practice. Using the discount rate to adjust for risk is often difficult to do in practice (especially internationally), and is difficult to do well. An alternative to using discount factor to adjust for risk is to explicitly correct the cash flows for the risk elements using rNPV or a similar method, then discount at the firm's rate.