

# Net Present Value = NPV

@wikipedia

One of the efficiency metrics of [Financial Investment](#), defined as a difference between [total DCF](#) and [Initial Investment](#)  $I_0$ :

$$NPV = -I_0 + DCF = -I_0 + \sum_{i=1}^n \frac{FCF_i}{(1+r)^i} = \sum_{i=0}^n \frac{FCF_i}{(1+r)^i}$$

where

$n$	total number of <a href="#">accounting periods</a>
$i = 0, 1, 2, 3, \dots$	running number of <a href="#">accounting period</a> (usually 1 year)
$r$	<a href="#">discount rate</a>
$FCF_i = CashIn_i - CashOut_i$	<a href="#">free cash flow</a> generated during the $i$ -th <a href="#">accounting period</a>

The main idea of [NPV](#) is that value of cash today is higher than value of cash tomorrow because immediate cash can be invested readily available investment market opportunities and start bringing some profit.

[NPV](#) dictates that commercial project should not only be just profitable but instead should be on par with or more profitable than easily available investment alternatives.

The corporate investment policy usually dictates that:

- [Investment Projects](#) with negative [NPV](#) should be rejected
- [Investment Projects](#) with higher [NPV](#) should have a financing priority over the projects with lower [NPV](#)

## See also

[Economics / Investment / Financial Investment / Financial Investment Metrics](#)

[ [Profitability Index \(PI\)](#) ] [ [Discounted Cash Flows \(DCF\)](#) ] [ [Internal Rate of Return \(IRR\)](#) ] [ [NPV](#) ]

[ [Production NPV](#) ]