

# Present Value = PV

@wikipedia

Popular mechanism of assessing the present value of the future cash flows  
 $CF = \{CF_t\}_{t=0..T} = \{CF_0, CF_1, CF_2, \dots, CF_N\}$  with account of discount rate.

$$(1) \quad PV_r[CF] = \sum_{t=0}^T \frac{CF_t}{(1+r)^t}$$

where

|     |  |
|-----|--|
| $T$ | total number of accounting periods (usually years) |
| $r$ | discount rate                                      |

It also works as a popular mechanism of quantifying the discounted value of the future Asset Market Value:

$$(2) \quad PV = \frac{AMV_n}{(1+r)^T}$$

where

|         |   |
|---------|---|
| $T$     | total number of accounting periods (usually years)  |
| $r$     | discount rate   |
| $AMV_n$ | Asset Market Value at the end of the $n$ -th accounting period  |
| $PV$    | discounted value of the potential Cash proceedings from selling the Asset at the end of the $n$ -th accounting period |

The main idea of Present Value is that value of cash today is deemed by the majority of cash owners as higher than value of future cash because it is already in hand and it can be spent by owner or can be invested in readily available low-risk investment market opportunities and assure a certain profit. While future cash may not happen at all or may be lower than returns from readily available low-risk investment.

The corresponding discount of the cash value over time is controlled by Discount Rate (usually denoted as  $r$ ) which is normally set along with Weighted Average Cost of Capital (WACC).

Investor normally would like to compare different investment opportunities and give early returns more weight and as such comparing Present Value of the future cash proceedings rather than actual cash proceedings.

The Present Value of the Cash Flow is also called Discounted Cash Flow (DCF).

The Present Value of all future Cash Flows is used to calculate Net Present Value (NPV) to prioritise investment projects.

## See also

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[Economics](#) / [Investment](#) / [Financial Investment](#) / [Cash Discount](#)

[ [Discounted Cash Flow \(DCF\)](#) ] [ [Profitability Index \(PI\)](#) ] [ [Net Present Value \(NPV\)](#) ] [ [Internal Rate of Return \(IRR\)](#) ]