

Discounted Cash Flow = DCF

@wikipedia

A popular mechanism of quantifying the **Present Value** of the future **Cash Flow** CF:

$$(1) \quad DCF = PV_r[CF] = \sum_{i=0}^T CF_i = \frac{CF_1}{(1+r)} + \frac{CF_2}{(1+r)^2} + \frac{CF_3}{(1+r)^3} + \dots$$

$$(2) \quad DCF_i = \frac{CF_i}{(1+r)^i}$$

where

T	total number of accounting periods
$i = 0, 1, 2, 3, \dots$	running number of accounting period (usually 1 year)
r	discount rate
CF_i	Cash Flow generated during the i -th accounting period
DCF_i	discounted value of Cash Flow generated during the i -th accounting period
DCF	discounted value of total cash generated over "n" accounting periods
$PV_r[CF]$	Present Value of future cash flows CF at discount rate r

The main idea of **DCF** 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 **DCF** rather than **FCF**.

DCF is used to calculate **Net Present Value (NPV)** to prioritise investment projects.

See also

Economics / Money / Currency / Cash / Cash Flow

[Investment / Financial Investment / Cash Discount]

[Present Value (PV)] [Profitability Index (PI)] [Net Present Value (NPV)] [Internal Rate of Return (IRR)]