

Profitability Index = PI

@wikipedia

One of the efficiency metrics of [Financial Investment](#) defined as:

$$(1) \quad PI = 1 + \frac{NPV}{I_0} = \frac{PV[CF^+]}{I_0}$$

where

NPV	Net Present Value
I_0	Initial Investment
$CF^+ = \{CF_0^+, CF_1^+, CF_2^+, \dots\}$	Cash Inflows

The key difference with [NPV](#) is that [PI](#) shows a value of [returns](#) per unit [cash invested](#).

This particularly means that some [Projects](#) with higher [NPV](#) may be less attractive in [PI](#) terms than [Projects](#) with lesser [NPV](#) as they require a higher [Initial Investment](#).

This allows a fair comparison of investment efficiency between two investment projects with different [Initial Investment](#) volumes.

The corporate investment policy usually dictates that:

- investment [Projects](#) with [PI](#) < 1 should be rejected
- investment [Projects](#) with higher [PI](#) should have a priority over the [Projects](#) with lower [PI](#)
- investment [Projects](#) with lower [PI](#) are added up to the Investment Package to reach the pre-set value of affordable [Initial Investment](#) (I_0)
- investment [Projects](#) with lower risk should have a priority over the [Projects](#) with higher risk

The quantification of [Project](#)'s is performed individually for each [Project](#) based on its nature.

Weighing the [Project](#)'s risks against [PI](#) to include to or exclude from Investment Package is based on the Corporate Investment Policy.

The formula (1) assumes that the only cash outflow would be the initial investment I_0 .

If this is not the case and the future cash flows include additional investments (for example additional paid in capital and /or [CAPEX](#)) then one need to give a preference to other methods of assessing the investment profitability, like [Present Value Index \(PVI\)](#) and [Modified Internal Rate of Return \(MIRR\)](#).

See also

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

[[Net Present Value \(NPV\)](#)][[Present Value Index \(PVI\)](#)]