“How can I use the MIRR function in excel to calculate the modified internal rate of return for a given series of cash flows?”

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The MIRR function in Excel is a useful tool for calculating the modified internal rate of return for a series of cash flows. This function takes into account both the initial investment and the reinvestment rate for future cash flows, providing a more accurate measure of the project's profitability. By inputting the relevant cash flows and the desired reinvestment rate, the MIRR function can quickly and accurately calculate the modified internal rate of return, allowing users to make informed financial decisions. This function is particularly useful for evaluating investments with multiple cash flows and varying reinvestment rates.

This article describes the formula syntax and usage of the **MIRR** function in Microsoft Excel.

Description

Returns the modified internal rate of return for a series of periodic cash flows. MIRR considers both the cost of the investment and the interest received on reinvestment of cash.

Syntax

MIRR(values, finance_rate, reinvest_rate)

The MIRR function syntax has the following arguments:

Values Required. An array or a reference to cells that contain numbers. These numbers represent a series of payments (negative values) and income (positive values) occurring at regular periods.

Values must contain at least one positive value and one negative value to calculate the modified internal rate of return. Otherwise, MIRR returns the #DIV/0! error value.

If an array or reference argument contains text, logical values, or empty cells, those values are ignored; however, cells with the value zero are included.

Finance_rate Required. The interest rate you pay on the money used in the cash flows.

Reinvest_rate Required. The interest rate you receive on the cash flows as you reinvest them.

Remarks

MIRR uses the order of values to interpret the order of cash flows. Be sure to enter your payment and income values in the sequence you want and with the correct signs (positive values for cash received, negative values for cash paid).

If n is the number of cash flows in values, frate is the finance_rate, and rrate is the reinvest_rate,

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then the formula for MIRR is:

$$\left(\frac{-\mathrm{NPV}(rrate, values[positive]) * (1+rrate)^n}{\mathrm{NPV}(frate, values[negative]) * (1+frate)}\right)^{\frac{1}{n-1}} - 1$$

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