

TWROR

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Use **TWROR** to calculate time-weighted rates of return, allowing you to specify which cash flows are used in the numerator of the calculation and which cash flows are used in the denominator. The **TWROR** calculation is.

$$r = \prod_{t=1}^n \frac{MV_t - CFE_t}{MV_{t-1} + CFB_t} - 1$$

Where

- MV is the ending market value for the period
- CFE is the net cash flow for the period to be subtracted from the ending market value
- CFB is the net Cash flow for the period to be added to the beginning market value

Syntax

```
Public Shared Function TWROR(  
    ByVal CF As Double(),  
    ByVal CFdate As Date(),  
    ByVal TType As String,)
```

Arguments

CF

the cash flow amounts. *CF* is an expression that returns an Array of **Double**, or of a type that can be implicitly converted to an Array of **Double**.

CFdate

the date on which the cash flow occurred. *CFdate* is an expression that returns a **Date**, or of a type that can be implicitly converted to **Date**.

TType

identifies the cash flow as being the Market value ("M"), an amount to be subtracted from the ending market value ("E") or an amount to be added to the beginning market value ("B" or NULL). *TType* is an expression that returns a **String**, or of a type that can be implicitly converted to **String**.

Return Type

Double

Remarks

- The function requires a series of cash flows (*CF*) and the dates on which those cash flows occurred (*CFDate*) as input. As a result, the order of the cash flows is not important.
- Dates on which the cash flow is zero, or on which there is no cash flow, do not have to be included.
- The beginning market value for a period is the ending market value for the previous period.
- Cash flows earlier than the minimum market value date are not included in the calculation.
- Cash flows later than the maximum market value date are not included in the calculation.
- [TWROR](#) does not require a market value for each day that there is a cash movement. All cash flows will be grouped together where the cash flow date is greater than the date of the previous ending market value and less than or equal to the current market value.
- For other time-weighted rate of return functions see [GTWRR](#) and [TWRR](#).

See Also

- [EMDIETZ](#) - Enhanced Modified Dietz
- [GTWRR](#) - Generalized time-weighted rate of return
- [LMDIETZ](#) - Linked Modified Dietz
- [MDIETZ](#) - Modified Dietz
- [TWRR](#) - Time Weighted Rate of Return