

CDRCashflowIRR

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Use the scalar valued function [CDRCashflowIRR](#) to calculate the internal rate of return on cash flows produced using the CDRCASHFLOW inputs. [CDRCashflowIRR](#) just returns the internal rate of return; if you want to explicitly produce the cash flows, use the [CDRCashflow](#) table-valued function.

Syntax

'METHOD: CDRCashflowIRR (1/3)

```
Public Shared Function CDRCashflowIRR(  
    ByVal PrinAmt As Double,  
    ByVal InterestRate As Double,  
    ByVal NumPmts As Integer,  
    ByVal LastPmtNum As Integer,  
    ByVal PmtPerYr As Integer,  
    ByVal LSRates As System.Array,  
    ByVal CPRRates As System.Array,  
    ByVal CDRRates As System.Array,  
    ByVal InterestOnly As Boolean,  
    ByVal PrinPaymentMultiple As Integer,  
    ByVal FirstPrinPayNo As Integer,  
    ByVal PmtPayPct As Double,)
```

'METHOD: CDRCashflowIRR (2/3)

```
Public Shared Function CDRCashflowIRR(  
    ByVal PrinAmt As Double,  
    ByVal InterestRate As Double,  
    ByVal NumPmts As Integer,  
    ByVal LastPmtNum As Integer,  
    ByVal PmtPerYr As Integer,  
    ByVal LSRates As System.Data.Datatable,  
    ByVal CPRRates As System.Data.Datatable,  
    ByVal CDRRates As System.Data.Datatable,  
    ByVal InterestOnly As Boolean,  
    ByVal PrinPaymentMultiple As Integer,  
    ByVal FirstPrinPayNo As Integer,  
    ByVal PmtPayPct As Double,)
```

'METHOD: CDRCashflowIRR (3/3)

```
Public Shared Function CDRCashflowIRR(  
    ByVal PrinAmt As Double,  
    ByVal InterestRate As Double,  
    ByVal NumPmts As Integer,  
    ByVal LastPmtNum As Integer,  
    ByVal PmtPerYr As Integer,  
    ByVal LSRates_per As IList(Of Integer),  
    ByVal LSRates_SMM As IList(Of Double),  
    ByVal CPRRates_per As IList(Of Integer),  
    ByVal CPRRates_SMM As IList(Of Double),  
    ByVal CDRRates_per As IList(Of Integer),  
    ByVal CDRRates_SMM As IList(Of Double),  
    ByVal InterestOnly As Boolean,
```

```
ByVal PrinPaymentMultiple As Integer,  
ByVal FirstPrinPayNo As Integer,  
ByVal PmtPayPct As Double,)
```

Arguments

PrinAmt

the principal amount to be amortized. *PrinAmt* is an expression that returns a **Double**, or of a type that can be implicitly converted to **Double**.

InterestRate

the annual rate of interest used to calculate the periodic payment. *InterestRate* is an expression that returns a **Double**, or of a type that can be implicitly converted to **Double**.

NumPmts

the number of periods to be used in the calculation of the periodic payment. *NumPmts* is an expression that returns a **Integer**, or of a type that can be implicitly converted to **Integer**.

LastPmtNum

the number of the last payment. Use @LastPmtNum for case where the number of payments for the annuity calculation is different than the actual number of payments, For example, an annuity based on 300 monthly payment which will be paid off at the end of 120 months. *LastPmtNum* is an expression that returns a **Integer**, or of a type that can be implicitly converted to **Integer**.

PmtPerYr

the number of payments per year. *PmtPerYr* is an expression that returns a **Integer**, or of a type that can be implicitly converted to **Integer**.

LSRates

the months and loss severity rates to be used in the calculation of the loss severity amounts. *LSRates* contains 2 data columns, month and rate, where 1% = .01. *LSRates* is an expression that returns a **2-dimensional array of Object** (col,row) or a **System.Data.DataTable** where the first column contains **Integer** values, or values of types that can be implicitly converted to **Integer**, and the second column contains **Double** values, or values of types that can be implicitly converted to **Double**.

LSRates_per

the months to be used in the calculation of the loss severity amounts. *LSRates_per* is an expression of a type that implements **IList(of Integer)** including system.array, arraylist, and list.

LSRates_SMM

the loss severity rates to be used in the calculation of the loss severity amounts, where 1% = .01. *LSRates_SMM* is an expression of a type that implements **IList(of Double)** including system.array, arraylist, and list.

CPRRates

The months and prepayment rates to be used in the calculation of the principal prepayments. *CPRRates* contains 2 data columns, month and rate, where 1% = .01. *CPRRates* is an expression that returns a **2-dimensional array of Object** (col,row) or a **System.Data.DataTable** where the first column contains **Integer** values, or values of types that can be implicitly converted to **Integer**, and the second column contains **Double** values, or values of types that can be implicitly converted to **Double**.

CPRRates_per

the months to be used in the calculation of the principal prepayments. *CPRRates_per* is an expression of a type that implements **IList(of Integer)** including system.array, arraylist, and list.

CPRRates_SMM

the principal prepayments to be used in the calculation of principal prepayments, where 1% = .01. *CPRRates_SMM* is an expression of a type that implements **IList(of Double)** including system.array, arraylist, and list.

CDRRates

The months and default rates to be used in the calculation of the default amounts. *CDRRates* contains 2 data columns, month and rate, where 1% = .01. *CDRRates* is an expression that returns a **2-dimensional array of Object** (col,row) or a **System.Data.DataTable** where the first column contains **Integer** values, or values of types that can be implicitly converted to **Integer**, and the second column contains **Double** values, or values of types that can be implicitly converted to **Double**.

CDRRates_per

the months to be used in the calculation of the default amounts. *CDRRates_per* is an expression of a type that implements **IList(of Integer)** including system.array, arraylist, and list.

CDRRates_SMM

the default rates to be used in the calculation of the default amounts, where 1% = .01. *CDRRates_SMM* is an expression of a type that implements **IList(of Double)** including system.array, arraylist, and list.

InterestOnly

a **boolean** value, which when true, identifies that the principal amount is scheduled to be repaid at the end of the loan.

PrinPaymentMultiple

the ratio of the frequency of the interest payments to the frequency of the interest payments. For example, a loan with monthly payments of interest and quarterly payments of principal would have a *PrinPaymentMultiple* of 3. *PrinPaymentMultiple* is an expression of type **Integer** or of a type that can be implicitly converted to **Integer**.

FirstPrinPayNo

the payment number of the first principal payment. *FirstPrinPayNo* is an expression of type **Integer** or of a type that can be implicitly converted to **Integer**.

PmtPayPct

a fixed percentage which is applied to the projected principal balance to calculate the projected principal payment. *PmtPayPct* is of a type **Double** or of a type that can be implicitly converted to **Double**.

Return Type

Double

Remarks

- If *FirstPrinPayNo* is NULL then *FirstPrinPayNo* = 1.
- If *PrinAmt* is NULL then *PrinAmt* = 0.
- If *InterestRate* is NULL then *InterestRate* = 0.
- If *NumPmts* is NULL then *NumPmts* = 0.
- If *LastPmtNum* is NULL then *LastPmtNum* = *NumPmts*.
- If *InterestOnly* is NULL then *InterestOnly* = FALSE.
- If *PrinPaymentMultiple* is NULL then *PrinPaymentMultiple* = 1.
- If *FirstPrinPayNo* is NULL then *FirstPrinPayNo* = *PrinPaymentMultiple*.
- If *NumPmts* < 1 then no rows are returned.
- If *PrinPaymentMultiple* < 1 then no rows are returned.
- If *FirstPrinPayNo* < 1 then no rows are returned.
- *PmtPerYr* must be 1, 2, 3, 4, 6, or 12.
- If *LSRatesQuery* returns NULL or no rows then *LS* is set to zero.
- If *CDRRatesQuery* returns NULL or no rows then *CDR* is set to zero.
- If *CPRRatesQuery* returns NULL or no rows then *CPR* is set to zero.

Examples

Find examples that illustrate how to call this function in the demo application bundled with the XLeratorDLL trial download.

See Also

- AMORTIZECASHFLOWS - Schedule of discounted cash flow values
- IRR - Internal rate of return
- MIRR - Modified internal rate of return
- XIRR - Internal rate of return with non-periodic cash flows

- XIRR30360 - Internal rate of return for irregular cash flows using a 30/360 day-count convention
- XIRR - Internal rate of return for cash flows discounted using XNPV
- XMIRR - Modified internal rate of return with non-periodic cash flow.