AMORTSCHED

Updated: 31 Mar 2016

Use AMORTSCHED to generate an amortization schedule of for a loan. The amortization schedule includes the payment number, the payment date, and the principal amount at the beginning of the period, the interest amount for the period, the principal payment for the period, any deferred interest for the period, and the ending principal amount.

AMORTSCHED supports loans with odd first periods, does US Rule or actuarial interest calculations, and allows you to specify a terminal (or future) value for the loan.

Syntax

```
Public Shared Function AMORTSCHED(
    ByVal PV As Double,
    ByVal LoanDate As Date,
    ByVal Rate As Double,
    ByVal FirstPayDate As Date,
    ByVal NumPmts As Integer,
    ByVal Pmtpyr As Integer,
    ByVal DaysInYr As Integer,
    ByVal FV As Double,
    ByVal IntRule As String,)
```

Arguments

PV

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

LoanDate

the date that the loan starts accruing interest. *LoanDate* is an expression that returns a **Date**, or of a type that can be implicitly converted to **Date**.

Rate

the annual interest rate. *Rate* is an expression that returns a **Double**, or of a type that can be implicitly converted to **Double**.

FirstPayDate

the date that the first payment is due. *FirstPayDate* is an expression that returns a **Date**, or of a type that can be implicitly converted to **Date**.

NumPmts

the total number of payments to be recorded over the life of the loan. *NumPmts* is an expression that returns a **Integer**, or of a type that can be implicitly converted to **Integer**.

Pmtpyr

the number of loan payments made in a year. *Pmtpyr* is an expression that returns a **Integer**, or of a type that can be implicitly converted to **Integer**.

DaysInYr

the denominator number of days to be used in the calculation of the interest amount in the odd first period. *DaysInYr* is an expression that returns a **Integer**, or of a type that can be implicitly converted to **Integer**.

FV

the future value at the end of the loan. *FV* is an expression that returns a **Double**, or of a type that can be implicitly converted to **Double**.

IntRule

Identifies the loan as conforming to the US Rule ("U") or the actuarial rule ("A") regarding the compounding of interest in the odd first period. *IntRule* is an expression that returns a **String**, or of a type that can be implicitly converted to **String**.

Return Type

`FinancialTypes.AMORTSCHED_table`

```
Class AMORTSCHED_table
  Inherits Data.DataTable
  Property Item(RowIndex As Integer) As FinancialTypes.OutputRow_AMORTSCHED

Class OutputRow_AMORTSCHED
  Public num_pmt As Integer
  Public date_pmt As Date
  Public amt_prin_init As Double
  Public amt_pmt As Double
  Public amt_int_pay As Double
  Public amt_prin_pay As Double
  Public amt_int_def As Double
  Public amt_prin_end As Double
End Class
```

Column	Description
num_pmt	The payment number.
date_pmt	The date of the payment.
amt_prin_init	The principal amount at the beginning of the period. For the first period, the principal amount is the amount of the loan, otherwise the principal amount is the ending principal amount from the prior period.
amt_pmt	The payment amount.
amt_int_pay	The interest payable amount for the period. The interest amount is the period interest rate (*Rate*/*Pmtpyr*) multiplied by the principal amount at the beginning of the period (amt_prin_init).
amt_prin_pay	The principal payment amount for the period. For actuarial accrual loans, the principal payment amount is the payment amount (amt_pmt) minus the interest payment amount (amt_int_pay). If the interest payment amount is

	greater than the payment amount, then the principal payment amount is negative. For US rule loans, the principal payment amount will always be greater than or equal to zero.
amt_int_def	The interest deferral (or escrow) amount. For US Rule loans only. If the interest payment amount (amt_int_pay) is greater than the payment amount (amt_pmt) then the difference is put into this column. When the interest payments (amt_int_pay) become less than the periodic payment (amt_pmt), the interest deferral amount (amt_int_def) from prior periods are reduced to zero, before applying any amounts to principal payments (amt_prin_pay).
amt_prin_end	The ending principal amount. Calculated as the beginning principal amount (amt_prin_init) less the principal payment amount for the period (amt_prin_pay).

Remarks

- If *DaysInYr* is NULL, then *DaysInYr* = 360
- If *FV* is NULL, then *FV* = 0
- If *IntRule* is NULL, then *IntRule* = "A"
- *FirstPayDate* must be greater than *LoanDate*
- *Pmtpyr* must be 1, 2, 3, 4, 6, 12, 13, 24, 26, 52, or 365
- *NumPmts* must be greater than 1
- *Rate* must be greater than zero
- *DaysInYr* must be 360, 364, or 365
- *PV* must be greater than zero

See Also

- AMORTRATE - Constant daily effective rate for bond/loan amortization
- Balloon - Schedule with periodic interest payments and principal repaid at maturity
- Bullet - Schedule with single interest and principal payment at maturity
- ConstantCashFlow - Schedule with equal periodic cash flows
- ConstantCashFlowFR - Schedule for a loan with a fixed maturity date and annuity-style payments
- ConstantPaymentAmount -Schedule with no maturity with fixed periodic payment amount
- ConstantPrincipal - Schedule with fixed maturity date where the periodic principal payment is calculated on a straight-line basis
- ConstantPrincipalAmount - Schedule with no fixed maturity with a fixed periodic principal payment
- ConstantPrincipalRate - schedule with no fixed maturity where a fixed percentage principal payment
- CONSTPRINAMORT - Schedule of a loan with a fixed principal repayment
- NPD - Next payment date of a loan

- NPNO - Next payment number of a loan
- PAYMENTPERIODS - Number of months until first payment date, start of grace period, end of grace period, and total number payments for a loan
- PERIODRATE - Adjust the nominal rate of a loan
- PPD - Previous payment date of a loan
- PPNO - Previous payment number of a loan
- UNEQUALLOANPAYMENTS - Schedule for a loan where interest and principal payment frequencies differ