# **AIFACTOR**

Updated: 31 Mar 2016

Use AIFACTOR to calculate the Accrued Interest Factor. AIFACTOR returns a decimal value which can then be multiplied by the face amount of the bond to return the monetary value of the accrued interest.

## **Syntax**

```
Public Shared Function AIFACTOR(
ByVal Basis As String,
ByVal Rate As Double,
ByVal Maturity As Date,
ByVal Settlement As Date,
ByVal Frequency As Integer,
ByVal FirstInterestDate As Date,
ByVal LastInterestDate As Date,
ByVal IssueDate As Date,
ByVal Holidays As String,)
```

## Arguments

#### Basis

the day-count convention used in the calculation of the accrued coupon interest. *@Basis* is an expression of the character string data type category.

@Basis	Day count basis
0 or omitted	US (NASD) 30/360
1	Actual/Actual
2	Actual/360
3	Actual/365
4	European 30/360
5	30/360 ISDA
6	NL/ACT
7	NL/365
8	NL/360
9	A/364
10	US (NASD) 30/360 non-end-of-month
11	Actual/Actual non-end-of-month
12	Actual/360 non-end-of-month
13	Actual/365 non-end-of-month
14	European 30/360 non-end-of-month
15	30/360 ISDA non-end-of-month
16	NL/ACT non-end-of-month
17	NL/365 non-end-of-month
18	NL/360 non-end-of-month
19	A/364 non-end-of-month
20	BUS/252
21	Actual/ISDA

22	Actual/ISMA
23	Actual/365L
24	Actual/AFB
30	BUS/252 non-end-of-month

*Basis* is an expression that returns a **String**, or of a type that can be implicitly converted to **String**.

#### Rate

the coupon rate, as a decimal, for the financial instrument. *Rate* is an expression that returns a **Double**, or of a type that can be implicitly converted to **Double**.

### Maturity

the maturity date for the financial instrument. *Maturity* is an expression that returns a **Date**, or of a type that can be implicitly converted to **Date**.

#### Settlement

the settlement date of the transaction. *Settlement* is an expression that returns a **Date**, or of a type that can be implicitly converted to **Date**.

#### Frequency

the number of coupon payments per year. For annual payments, *Frequency* = 1; for semi-annual, *Frequency* = 2; for quarterly, *Frequency* = 4; for monthly, *Frequency* = 12. *Frequency* is an expression that returns a **Integer**, or of a type that can be implicitly converted to **Integer**.

#### *FirstInterestDate*

the first coupon date of the security. The period from the issue date until the first coupon date defines the odd first interest period. All subsequent coupon dates are assumed to occur at regular periodic intervals as defined by *Frequency* in relation to the *LastInterestDate* (if entered) or *Maturity*. *FirstInterestDate* is an expression that returns a **Date**, or of a type that can be implicitly converted to **{paramtype}**.

#### LastInterestDate

the last coupon date of the security prior to maturity date, if the last coupon period is an odd period. The period from the last interest date date until the maturity date defines the odd last interest period. All previous coupon dates are assumed to occur at regular periodic intervals as defined by *Frequency*. *LastInterestDate* is an expression that returns a **Date**, or of a type that can be implicitly converted to **{paramtype}**.

#### *IssueDate*

the issue date of the security; the date from which the security starts accruing interest. *IssueDate* is an expression that returns a **Date**, or of a type that can be implicitly converted to **Date**.

### Holidays

a comma separated string containing the holiday (non-business) dates to be used in the calculation of the number of business days. You can use the aggregate function NDB to create an appropriately formatted string. *Holidays* is an expression that returns a **String**, or of a type that can be implicitly converted to **String**.

## Return Type

Double

#### Remarks

- If Basis IS NULL, then Basis = 0
- For bonds with regular period coupons, coupon dates are calculated backwards from Maturity
- For bonds with an odd first coupon period, settling in the odd period, the coupon dates are calculated backward from *FirstInterestDate*
- Odd first coupon bonds with Settlement >= FirstInterestDate and no LastInterestDate are treated as regular periodic bonds
- If the last interest date is not NULL and the settlement date is less than the *LastInterestDate* and greater than or equal to the *FirstInterestDate* or *FirstInterestDate* IS NULL, than the coupon dates are calculated backwards from *LastInterestDate*.
- If the LastInterestDate IS NOT NULL and Settlement >= LastInterestDate then coupon dates are calculated from the guasi-maturity date, which is calculated forward from LastInterestDate.

### See Also

- ACCINTACT Accrued interest where coupon amounts are based on number of days in the coupon period
- ACCRINT Accrued Interest
- ACCRINTM Accrued Interest at Maturity
- AIFACTOR IAM Accrued Interest Factor, Interest at Maturity
- AIFACTOR OFC Accrued Interest Factor, Odd First Coupon
- AIFACTOR OLC Accrued Interest Factor, Odd Last Coupon
- AIFACTOR\_RPI Accrued Interest Factor, Regular Periodic Interest
- BONDINT Accrued Interest on a Bond
- COMPINT Accrued interest for a security where interest is compounded periodically and paid at maturity.
- ODDCOMPINT Accrued interest for a security with an odd first or odd last coupon period
- ODDFINT Accrued interest for a bond with an odd first coupon
- ODDLINT Accrued interest for a bond with an odd last coupon
- STEPACCINT Accrued interest of a stepped-coupon bond