

OFLYIELD

Updated: 31 Mar 2016

Use **OFLYIELD** to calculate the yield from price per 100 face value of a bond with an odd first period and an odd last period. There is no closed-form solution for calculating the yield when there is more than one period to redemption; the solution is found by iteration.

Syntax

```
Public Shared Function OFLYIELD(  
    ByVal Settlement As Date,  
    ByVal Maturity As Date,  
    ByVal Issue As Date,  
    ByVal First_coupon As Date,  
    ByVal Last_coupon As Date,  
    ByVal Rate As Double,  
    ByVal Price As Double,  
    ByVal Redemption As Double,  
    ByVal Frequency As Double,  
    ByVal Basis As String,)
```

Arguments

Settlement

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

Maturity

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

Issue

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

First_coupon

the first coupon date of the bond. The period from the issue date until the first coupon date defines the odd interest period. All coupon dates from *First_coupon* to *Last_coupon* are assumed to occur at regular periodic intervals as defined by *Frequency*. *First_coupon* is an expression that returns a **Date**, or of a type that can be implicitly converted to **Date**.

Last_coupon

the last coupon date of the bond prior to the maturity. The period from the last interest date until the maturity date defines the odd interest period. All coupon dates from *First_coupon* to *Last_coupon* are assumed to occur at regular periodic intervals as defined by *Frequency*.

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

Rate

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

Price

the price of the bond. *Price* is an expression that returns a **Double**, or of a type that can be implicitly converted to **Double**.

Redemption

the bond's redemption value per 100 face value. *Redemption* is an expression that returns a **Double**, or of a type that can be implicitly converted to **Double**.

Frequency

the number of coupon payments per year. For annual payments, *Frequency* = 1; for semi-annual, *Frequency* = 2; for quarterly, *Frequency* = 4; for bi-monthly, *Frequency* = 6; for monthly, *Frequency* = 12. For bonds with Basis = "A/364" or 9, you can enter 364 for payments made every 52 weeks, 182 for payments made every 26 weeks, 91 for payments made every 13 weeks, 28 for payments made every 4 weeks, 14 for payments made every 2 weeks, and 7 for weekly payments. *Frequency* is an expression that returns a **Double**, or of a type that can be implicitly converted to **Double**.

Basis

the type of day count to use.

| Basis | Day count basis |
|---|-----------------------------------|
| 0, "BOND" | US (NASD) 30/360 |
| 1, "ACTUAL" | Actual/Actual |
| 2, "A360" | Actual/360 |
| 3, "A365" | Actual/365 |
| 4, "30E/360 (ISDA)", "30E/360", "ISDA", "30E/360 ISDA", "EBOND" | European 30/360 |
| 5, "30/360", "30/360 ISDA", "GERMAN" | 30/360 ISDA |
| 6, "NL/ACT" | No Leap Year/ACT |
| 7, "NL/365" | No Leap Year /365 |
| 8, "NL/360" | No Leap Year /360 |
| 9, "A/365" | Actual/364 |
| 10, "BOND NON-EOM" | US (NASD) 30/360 non-end-of-month |
| 11, "ACTUAL NON-EOM" | Actual/Actual non-end-of-month |
| 12, "A360 NON-EOM" | Actual/360 non-end-of-month |
| 13, "A365 NON-EOM" | Actual/365 non-end-of-month |
| 14, "30E/360 NON-EOM", "30E/360 ICMA NON-EOM", "EBOND NON-EOM" | European 30/360 non-end-of-month |

| | |
|---|-----------------------------------|
| 15, "30/360 NON-EOM", "30/360 ISDA NON-EOM", "GERMAN NON-EOM" | 30/360 ISDA non-end-of-month |
| 16, "NL/ACT NON-EOM" | No Leap Year/ACT non-end-of-month |
| 17, "NL/365 NON-EOM" | No Leap Year/365 non-end-of-month |
| 18, "NL/360 NON-EOM" | No Leap Year/360 non-end-of-month |
| 19, "A/365 NON-EOM" | Actual/364 non-end-of-month |

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

Return Type

Double

Remarks

- If *Settlement* is NULL then *Settlement* equals the current system processing date.
- If *Rate* is NULL then *Rate* = 0.
- If *Price* is NULL then *Price* = 100.
- If *Redemption* is NULL then *Redemption* = 100.
- If *Frequency* is NULL then *Frequency* = 2.
- If *Basis* is NULL then *Basis* = 0.
- If *Frequency* invalid an error is returned.
- If *Basis* invalid (see above list) an error is returned.
- If *Maturity* is NULL then an error is returned.
- If *Last_coupon* is NULL then an error is returned.
- If *First_coupon* is NULL then an error is returned.
- If *Issue* is NULL then an error is returned.
- If *Settlement* >= *First_coupon* then the yield is calculated using `ODDLYIELD`.

See Also

- `BONDDCF` - Cash flows for a bond paying regular periodic interest
- `DIRTYPRICE` - Dirty price of a bond
- `DIRTYIELD` - Yield of a bond from the dirty price
- `DIS` - Price, discount rate, and/or yield of a discount security
- `DISC` - Discount rate
- `DISFACTORS` - Factors for the price calculation of a discount security
- `IAM` - Price and/or yield of a security paying interest at maturity
- `IAMFACTORS` - Factors for the price calculation of a security paying interest at maturity
- `ODDFPRICE` - Price of a bond with an odd first coupon
- `ODDFYIELD` - Yield of a bond with an odd first coupon

- ODDLPRICE - Price of a bond with an odd last coupon
- ODDLYIELD - Yield of a bond with an odd last coupon
- OFC - Calculate the price and/or yield of a bond with an odd first coupon using the ODDFPRICE equation
- OFCFACTORS - Returns the components of the ODDFPRICE equation
- OFL - Calculate the price and/or yield of a bond with an odd first and an odd last coupon using the OFLPRICE equation
- OFLFACTORS - Returns the components of the OFLPRICE equation
- OFLPRICE - Calculate the price of a security with an odd first and odd last period
- OLC - Calculate the price and/or yield of a bond with an odd last coupon using the ODDLPRICE equation
- OLCFACTORS - Returns the components of the ODDLPRICE equation
- PRICE - Price of a security paying regular periodic interest
- PRICEACT - Price of a bond where coupon amounts are based on number of days in the coupon period
- PRICEACTV - Cash flows and discount factors for a bond where coupon amounts are based on number of days in the coupon period
- PRICEDISC - Price of a discounted security
- PRICEFR - Price of a bond with forced redemptions
- PRICEMAT - Price of an interest-at-maturity security
- PRICESTEP - Price of a security with step-up rates
- RPI - Calculate the price and/or yield of a bond with regular periodic coupons
- RPIFACTORS - Factors for the calculation of the price of a bond that pays regular periodic interest
- TBILLEQ - Bond equivalent yield of a Treasury Bill
- TBILLPRICE - Price of a Treasury Bill
- TBILLYIELD - Yield of a Treasury Bill
- YIELD - Yield of a bond paying regular periodic interest
- YIELDACT - Yield of a bond where coupon amounts are based on number of days in the coupon period
- YIELDDISC - Yield on a discount security
- YIELDFR - Yield of a bond with forced redemptions
- YIELDMAT - Yield on an interest-at-maturity security
- YIELDSTEP - Yield of a security with step-up rates