NELSONSIEGEL

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Use NELSONSIEGEL to calculate the zero coupon rate for a date from the supplied parameters. Nelson and Siegel suggested calculating the yield curve at a point using this formula:

$$y_\tau = \beta_0 + \beta_1\left[\frac{1-\exp(-\tau/\lambda)}{\tau/\lambda}\right] + \beta_2\left[\frac{1-\exp(-\tau/\lambda)}{\tau/\lambda} - \exp(-\tau/\lambda)\right]$$

Syntax

```
Public Shared Function NELSONSIEGEL(
    ByVal Maturity As Double,
    ByVal B0 As Double,
    ByVal B1 As Double,
    ByVal B2 As Double,
    ByVal Tau As Double,)
```

Arguments

Maturity

The amount of time, in years, to the maturity date. *Maturity* is an expression that returns a **Double**, or of a type that can be implicitly converted to **Double**.

B0

The first factor passed to the function. *B0* is an expression that returns a **Double**, or of a type that can be implicitly converted to **Double**.

B1

The second factor passed to the function. *B1* is an expression that returns a **Double**, or of a type that can be implicitly converted to **Double**.

B2

The third factor passed to the function. *B2* is an expression that returns a **Double**, or of a type that can be implicitly converted to **Double**.

Tau

The fourth factor passed to the function. *Tau* is an expression that returns a **Double**, or of a type that can be implicitly converted to **Double**.

Return Type

Double

Remarks

- Use the YEARFRAC function to calculate *Maturity*.
- Use the NSCOEF function to calculate the *B0*, *B1*, *B2*, and *Tau* coefficients to pass into the function.

See Also

- NSCOEF - Nelson Siegel coefficients for a zero coupon curve
- NSCOEF2 - Nelson Siegel coefficients for a zero coupon curve