

EQVOLATILITY

Updated: 31 Mar 2016

Use **EQVOLATILITY** to calculate the historical volatility based upon price or valuation data. The historic volatility is calculated as the sample standard deviation of the natural logarithm of the returns multiplied by the square of the scaling factor supplied to the function. The returns are calculated on the order set of data passed as the current price divided by the previous price.

$$v = s_r * \sqrt{\text{scale}}$$

Where

$$r = \{r_1, r_2, r_3 \dots r_n\}$$

and

$$r_n = \ln\left(\frac{\text{Price}_n}{\text{Price}_{n-1}}\right)$$

Syntax

```
Public Shared Function EQVOLATILITY(  
    ByVal PDate As Date(),  
    ByVal PValue As Double(),  
    ByVal Scale As Double,)
```

Arguments

PDate

the date associated with the price or valuation. *PDate* is an expression that returns an Array of **Date**, or of a type that can be implicitly converted to an Array of **Date**.

PValue

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

Scale

the scaling factor used in the calculation. *Scale* is an expression that returns a **Double**, or of a type that can be implicitly converted to **Double**.

Return Type

Double

Remarks

- If *Scale* IS NULL them *Scale* is set to 252.
- For daily returns set *Scale* = 252.

- For weekly returns set *Scale* = 52.
- For monthly returns set *Scale* = 12.
- For quarterly returns set *Scale* = 4.
- If there are multiple rows for the same date, the *PValue* is accumulated.
- The return values are automatically calculated by putting the *PValue* in *PDate* order.

See Also

- EQALPHA - Intercept of the security characteristic line between an asset and a specified benchmark
- EQBETA - Correlated volatility (beta) between an asset and a specified benchmark
- INFORATIO - Information ratio based upon return data
- INFORATIO2 - Information ratio based upon price or valuation data
- MAXDD - Calculate the maximum drawdown based on net asset or portfolio values
- MAXDD2 - Calculate the maximum drawdown based on net asset or portfolio returns
- MOIC - Multiple of Invested Capital
- SHARPE - Sharpe ratio based upon return data
- SHARPE2 - Sharpe ratio based upon price or valuation data
- SORTINO - Sortino ratio based upon return data
- SORTINO2 - Calculate the Sortino ratio based upon price data
- TREYNOR - Treynor ratio based upon return data
- TREYNOR2 - Treynor ratio based upon price or valuation data