NDK_XKURT

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- C/C++
- .Net

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int __stdcall NDK_XKURT(**double * X,**
                          size_t   N,
                          WORD   reserved,
                          double * retVal
)

Calculates the sample excess kurtosis.

Return values

    NDK_SUCCESS Operation successful
    NDK_FAILED   Operation unsuccessful. See **Macros** for full list.

Parameters

    [in] **X**   is the input data sample (a one dimensional array).
    [in] **N**   is the number of observations in X.
    [in] **reserved** This parameter is reserved and must be 1.
    [out] **retVal**   is the calculated sample excess-kurtosis value.

Remarks

1. The data sample may include missing values (e.g. #N/A).
2. Using a given data sample, the sample excess kurtosis is calculated as:

$$\hat K (x)= \frac{\sum_{t=1}^T (x_t-\bar x)^4}{(T-1)\hat \sigma^4}-3,$$

where:

- $\hat K(x)$ is the sample excess kurtosis.
- x_i is the i-th non-missing value in the data sample.
- T is the number of non-missing values in the data sample.
- $\hat \sigma$ is the sample standard deviation.

Requirements

Header	SFSDK.H
Library	SFSDK.LIB
DLL	SFSDK.DLL

Examples

```
int NDK_XKURT(double[]   pData,
              UIntPtr     nSize,
              short       argMenthod,
              ref double  retVal
              )
```

Calculates the sample excess kurtosis.

Return Value

a value from **NDK_RETCODE** enumeration for the status of the call.

NDK_SUCCESS operation successful
Error   Error Code

Parameters

[in] **pData** is the input data sample (a one dimensional array).
[in] **nSize** is the number of observations in pData.
[in] **argMenthod** This parameter is reserved and must be 1.
[out] **retVal** is the calculated sample excess-kurtosis value.

Remarks

1. The data sample may include missing values (e.g. #N/A).
2. Using a given data sample, the sample excess kurtosis is calculated as:

$$\hat K (x)= \frac{\sum_{t=1}^T(x_t-\bar x)^4}{(T-1)\hat \sigma^4}-3,$$

where:

- $\hat K(x)$ is the sample excess kurtosis.
- x_i is the i-th non-missing value in the data sample.
- T is the number of non-missing values in the data sample.
- $\hat \sigma$ is the sample standard deviation.

Exceptions

Exception Type	Condition
None	N/A

Requirements

Namespace	NumXLAPI
Class	SFSDK
Scope	Public
Lifetime	Static
Package	NumXLAPI.DLL

Examples

References

Hull, John C.; Options, Futures and Other DerivativesFinancial Times/ Prentice Hall (2011), ISBN 978-0132777421

See Also

[template("related")]