NDK_LAG

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- C/C++
- .Net

```
int __stdcall NDK_LAG(double * X,
                      size_t   N,
                      size_t   K
                     )
```

Returns an array of cells for the backward shifted, backshifted or lagged time series.

Returns

status code of the operation

Return values

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

Parameters

[in,out]	**X**	is the univariate time series data (a one dimensional array).
[in]	**N**	is the number of observations in X.
[in]	**K**	is the lag order (e.g. k=0 (no lag), k=1 (1st lag), etc.).

Remarks

1. The time series is homogeneous or equally spaced.
2. The time series may include missing values (e.g. NaN) at either end.
3. k (i.e. Excel lag order) should be non-negative and less than the size of the time series.
4. The lagged time series is: $$\left[z_t\right] = L^k\left[x_t\right] = \left[x_{t-k}\right]$$ Where:
   - $\left[z_t\right]$ is the lagged time series.
   - $\left[x_t\right]$ is the input time series.
   - L is the **Excel lag operator.**
   - k is the Excel lag order.
     $k \leq T-1$

Requirements

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

Examples

int NDK_LAG(double[] data, UIntPtr nLen, UIntPtr lag)

```
int NDK_LAG(double[] data,
            UIntPtr  nLen,
            UIntPtr  lag
           )
```

Namespace: NumXLAPI
Class: SFSDK
Scope: Public
Lifetime: Static

Returns an array of cells for the backward shifted, backshifted or lagged time series.

Returns

status code of the operation

Return values

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

Parameters

[in,out]	**data**	is the univariate time series data (a one dimensional array).
[in]	**nLen**	is the number of observations in data.
[in]	**lag**	is the lag order (e.g. k=0 (no lag), k=1 (1st lag), etc.).

Remarks

1. The time series is homogeneous or equally spaced.
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   - \(\left[z_t\right]\) is the lagged time series.
   - \(\left[x_t\right]\) is the input time series.
   - \(L\) is the **Excel lag operator.**
   - \(k\) is the Excel lag order.

     \(k \leq T-1 \)

Exceptions

Exception Type	Condition

None	N/A

Requirements

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

Examples

References

Hamilton, J .D.; Time Series Analysis , Princeton University Press (1994), ISBN 0-691-04289-6

Tsay, Ruey S.; Analysis of Financial Time Series John Wiley & SONS. (2005), ISBN 0-471-690740

See Also

[template("related")]