NDK_AIRLINE_FITTED

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- C/C++
- .Net

```
int __stdcall NDK_AIRLINE_FITTED(double *        pData,
                                 size_t          nSize,
                                 double          mean,
                                 double          sigma,
                                 WORD            S,
                                 double          theta,
                                 double          theta2,
                                 FIT_RETVAL_FUNC retType
                                 )
```

Returns an array of cells for the fitted values (i.e. mean, volatility and residuals)

Returns

status code of the operation

Return values

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

Parameters

[in] **pData**   is the univariate time series data (a one dimensional array).
[in] **nSize**   is the number of observations in pData.
[in] **mean**   is the model mean (i.e. mu).
[in] **sigma**   is the standard deviation of the model's residuals/innovations.
[in] **S**   is the length of seasonality (expressed in terms of lags, where s > 1).
[in] **theta**   is the coefficient of first-lagged innovation (see model description).
[in] **theta2** is the coefficient of s-lagged innovation (see model description).
[in] **retType** is a switch to select a output type

Order	Description
1	Fitted mean (default)
2	Fitted standard deviation or volatility
3	Raw (non-standardized) residuals
4	Standardized residuals

Remarks

1. The underlying model is described **here.**
2. The time series is homogeneous or equally spaced
3. The time series may include missing values (e.g. NaN) at either end.

4. The long-run mean argument (mean) can take any value or be omitted, in which case a zero value is assumed.
5. The value of the residuals/innovations standard deviation (sigma) must be positive.
6. The season length must be greater than one.
7. The input argument for the non-seasonal MA parameter - theta - is optional and can be omitted, in which case no non-seasonal MA component is included.
8. The input argument for the seasonal MA parameter - theta2 - is optional and can be omitted, in which case no seasonal MA component is included.

Requirements

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

Examples

NDK_AIRLINE_FITTED(double[]   **pData,**
                        UIntPtr   **nSize,**
                        double   **mean,**
                        double   **sigma,**
                        short   **dSeason,**
                        double   **theta,**
                        double   **theta2,**
                        FIT_RETVAL_FUNCretType
)

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

Returns an array of cells for the fitted values (i.e. mean, volatility and residuals)

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 univariate time series data (a one dimensional array).
[in] **nSize**   is the number of observations in pData.
[in] **mean**   is the model mean (i.e. mu).
[in] **sigma**   is the standard deviation of the model's residuals/innovations.
[in] **dSeason** is the length of seasonality (expressed in terms of lags, where s > 1).
[in] **theta**   is the coefficient of first-lagged innovation (see model description).
[in] **theta2**   is the coefficient of s-lagged innovation (see model description).
[in] **retType** is a switch to select a output type

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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")]