NDK_AIRLINE_VALIDATE

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- C/C++
- .Net

```
int __stdcall NDK_AIRLINE_VALIDATE(double mean,
                                   double sigma,
                                   WORD  S,
                                   double theta,
                                   double theta2
                                  )
```

Examines the model's parameters for stability constraints (e.g. stationary, etc.).

Returns

status code of the operation

Return values

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

Parameters

[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).

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 standard deviation (i.e. \(\sigma\)) of the ARMA model's residuals should be greater than zero.
5. The Airline model is a special case of multiplicative seasonal ARMA model.
6. The Airline model is a special case of multiplicative seasonal ARIMA model, and it assumes independent and normally distributed residuals with constant variance.

Requirements

Header	SFSDK.H

Library	SFSDK.LIB
DLL	SFSDK.DLL

Examples

```
int NDK_AIRLINE_VALIDATE(double mean,
                         double sigma,
                         short  dSeason,
                         double theta,
                         double theta2
                        )
```

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

Examines the model's parameters for stability constraints (e.g. stationary, etc.).

Return Value

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

NDK_SUCCESS operation successful
Error Error Code

Parameters

[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).

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 standard deviation (i.e. \(\sigma\)) of the ARMA model's residuals should be greater than zero.
5. The Airline model is a special case of multiplicative seasonal ARMA model.
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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")]