NDK_FARIMA_FORE

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- C/C++
- .Net

```
int __stdcall NDK_FARIMA_FORE(double * pData,
                              size_t   nSize,
                              double   mean,
                              double   sigma,
                              double   nIntegral,
                              double * phis,
                              size_t   p,
                              double * thetas,
                              size_t   q,
                              size_t   nStep,
                              WORD     retType,
                              double * retVal
                             )
```

Calculates the out-of-sample forecast statistics.

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 ARMA model mean (i.e. mu).
[in] **sigma** is the standard deviation of the model's residuals/innovations.
[in] **nIntegral** is the model's integration order.
[in] **phis** are the parameters of the AR(p) component model (starting with the lowest lag).
[in] **p** is the number of elements in phis (order of AR component)
[in] **thetas** are the parameters of the MA(q) component model (starting with the lowest lag).
[in] **q** is the number of elements in thetas (order of MA component)
[in] **nStep** is the forecast time/horizon (expressed in terms of steps beyond end of the time series).
[in] **retType** is a switch to select the type of value returned

Order	Description
1	Mean forecast value (default)
2	Forecast standard error (aka local volatility)

	3	Volatility term structure
	4	Lower limit of the forecast confidence interval
	5	Upper limit of the forecast confidence interval
[in] **alpha**	is the statistical significance level. If missing, a default of 5% is assumed.	
[out]**retVal**	is the calculated forecast value	

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.

Requirements

Header	SFSDK.H
Library	SFSDK.LIB
DLL	SFSDK.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")]