

RcmdrPlugin.sutteForecastR: 'Rcmdr' Plugin for Alpha-Sutte Indicator

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The 'sutteForecastR' is a package of Alpha-Sutte indicator. To make the 'sutteForecastR' user friendly, so we develop an 'Rcmdr' plug-in based on the Alpha-Sutte indicator function.

<https://cran.r-project.org/web/packages/RcmdrPlugin.sutteForecastR/index.html>

The formula of α -Sutte:

$$a_t = \frac{\alpha \left(\frac{\Delta x}{\alpha + \delta} \right) + \beta \left(\frac{\Delta y}{\beta + \alpha} \right) + \gamma \left(\frac{\Delta z}{\gamma + \beta} \right)}{3}$$

where :

$$\delta = a_{t-4}$$

$$\alpha = a_{t-3}$$

$$\beta = a_{t-2}$$

$$\gamma = a_{t-1}$$

$$\Delta x = \alpha - \delta = a_{t-3} - a_{t-4}$$

$$\Delta y = \beta - \alpha = a_{t-2} - a_{t-3}$$

$$\Delta z = \gamma - \beta = a_{t-1} - a_{t-2}$$

a_t = data pada waktu ke-t

a_{t-k} = data pada waktu ke-(t - k)

Package ‘RcmdrPlugin.sutteForecastR’

September 22, 2017

Type Package

Title 'Rcmdr' Plugin for Alpha-Sutte Indicator 'sutteForecastR'

Version 1.0.0

Date 2017-09-08

Author Ansari Saleh Ahmar [aut, cre]

Maintainer Ansari Saleh Ahmar <ansarisaleh@unm.ac.id>

Depends R (>= 3.0), Rcmdr (>= 1.8-3), sutteForecastR

Description The 'sutteForecastR' is a package of Alpha-Sutte indicator. To make the 'sutteForecastR' user friendly, so we develop an 'Rcmdr' plugin based on the Alpha-Sutte indicator function.

License GPL (>= 2)

URL <https://www.r-project.org>, <http://www.ansarisaleh.web.id>

NeedsCompilation no

Repository CRAN

Date/Publication 2017-09-22 08:44:55 UTC

R topics documented:

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RcmdrPlugin.sutteForecastR
RcmdrPlugin.sutteForecastR package

Description

RcmdrPlugin.sutteForecastR package

Details

Package: RcmdrPlugin.sutteForecastR
Type: Package
Version: 1.0
Date: 2017-09-08

Author(s)

Ansari Saleh Ahmar

Maintainer: Ansari Saleh Ahmar <ansarisaleh@unm.ac.id>

Examples

```
x <- c(94.77, 96.23, 98.12, 99.09, 100.04, 100.12, 99.93, 100.09,  
101.44, 102.38, 103.68, 104.12, 104.81, 105.35, 106.36, 106.89, 107.35,  
107.21, 107.72, 108.54, 109.57, 112.03)
```

```
alpha.sutte(x)
```

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E:\TESIC\18 Suite Indikator\Package\RcmdrPlugin.sutteForecastR - RStudio

```

> library(RcmdrPlugin.sutteForecastR)
Loading required package: Rcmdr
Loading required package: spInfer
Loading required package: RcmdrMisc
Loading required package: car
Loading required package: sandwich
Loading required package: effects
Attaching package: 'effects'
The following object is masked from 'package:car':
  prestige
RcmdrMsg: [1] NOTE: R Commander Version 2.4-0: wed Sep 13 15:27:35 2017
Rcmdr Version 2.4-0
Loading required package: sutteForecastR
      \ \ \
      | | | sutteForecastR: an R package for Forecasting Data
      | | | using Alpha-Sutte Indicator by Ansari Saleh Ahmar
      | | | Ahmar, A.S. (2017) <doi:10.17605/osf.io/rknsv>
      | | | | version 0.1
      | | | Universitas Negeri Makassar, Indonesia
RcmdrMsg: [1] NOTE: R Commander Version 2.4-0: wed Sep 13 15:27:36 2017
      \ \ \
      | | | RcmdrPlugin.sutteForecastR: Rcmdr plugin for sutteForecastR
      | | | Alpha-Sutte Indicator by Ansari Saleh Ahmar
      | | | Ahmar, A.S. (2017) <doi:10.17605/osf.io/rknsv>
      | | | | version 1.0
      | | | Universitas Negeri Makassar, Indonesia
RcmdrMsg: [2] NOTE: The dataset dataset has 1323 rows and 1 columns.
> |
  
```

R Commander

Data set: Dataset | Edit data set | View data set | Forecast (No active models)

R Script | R Markdown

(sutteForecastR)

Documentation for package 'RcmdrPlugin.sutteForecastR' version 1.0

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```

> library(RcmdrPlugin.sutteForecastR)
Loading required package: Rcmdr
Loading required package: spInfer
Loading required package: RcmdrMisc
Loading required package: car
Loading required package: sandwich
Loading required package: effects
Attaching package: 'effects'
The following object is masked from 'package:car':
  prestige
RcmdrMsg: [1] NOTE: R Commander Version 2.4-0: wed Sep 13 15:27:35 2017
Rcmdr Version 2.4-0
Loading required package: sutteForecastR
      \ \ \
      | | | sutteForecastR: an R package for Forecasting Data
      | | | using Alpha-Sutte Indicator by Ansari Saleh Ahmar
      | | | Ahmar, A.S. (2017) <doi:10.17605/osf.io/rknsv>
      | | | | version 0.1
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RcmdrMsg: [1] NOTE: R Commander Version 2.4-0: wed Sep 13 15:27:36 2017
      \ \ \
      | | | RcmdrPlugin.sutteForecastR: Rcmdr plugin for sutteForecastR
      | | | Alpha-Sutte Indicator by Ansari Saleh Ahmar
      | | | Ahmar, A.S. (2017) <doi:10.17605/osf.io/rknsv>
      | | | | version 1.0
      | | | Universitas Negeri Makassar, Indonesia
> |
  
```

R Commander

Data set: <<No active datasets>> | Edit data set | View data set | Model: <<No active models>>

Select Data Set

Data Sets (pick one)

- Dataset

OK Cancel

(sutteForecastR)

Documentation for package 'RcmdrPlugin.sutteForecastR' version 1.0

E:\TESIC\18 Suite Indikator\Package\RcmdrPlugin.sutteForecastR - RStudio

```

sigma^2 estimated as 85587
$Robust_exponential_smoothing
ROBETS(A,N,N)
Call:
robets(y = a1_mi_10)
Smoothing parameters:
  alpha = 0.0258
Initial states:
  sigma = 437.0038
  l = 362.525
sigma = 295.0385
robAIC robAICc robBIC
24671.58 24671.59 24676.77
$Theta_Model
Theta
Call:
forecast::ets(y = y, model =
Smoothing parameters:
  alpha = 0.0001
Initial states:
  l = 490.1881
sigma = 293.2573
AIC AICc BIC
24410.50 24410.52 24426.05
  
```

R Commander

Data set: Dataset | Edit data set | View data set | Model: <<No active models>>

R Script | R Markdown

alpha.sutte(Data\$aet\$Data)

Submit

R Graphics Device 2 (ACTIVE)

File History Resize

Forecasts from Alpha-Sutte Indicasts from ARIMA(1,0,1) with non-ze

Forecasts from HoltWinters

Forecasts from ROBETS(A,N,N)

Forecasts from Theta

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