Package 'CVCBasicVaR'

```
r Sys.Date()
```

Type Package
Title Basic Value at Risk with Parametric Approach
Version 0.1.0
Author(s): Massimo Caprari [massimo.caprari@usi.ch],
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Maintainer Anastasiya Varvus anastasiya.varvus@usi.ch
Description The goal of this package is to provide some useful function for the computation of the Value at Risk with a parametric approach.
Depends quantmod
Imports quantmod
Licens GPL-2
Encoding UTF-8
LazyData true
RoxygenNote 6.1.1
Suggests: knitr
rmarkdown
VignetteBuilder knitr

1) Price_Download *Download Daily Price or Volume from Yahoo Finance*

Description

Download daily price or volume from Yahoo Finance for a single company or for a vector that contains the tickers of several companies. Note that this function is based on the getSymbols function of the quantmod. Note that in order to have an omogeneous output all rows containing at least one missing observation will be deleted.

Usage

```
Price_Download (ticker, price_type = 4, from, to)
```

Arguments

ticker a character vector of the Yahoo Finance ticker of the companies/indices for which prices/volume should be downloaded

price_type a number between 1 to 6 that specifies what is the base of the data that should be downloaded (default = 4). 1 = Daily price, 2 = Highest price, 3 = Lowest price, 4 = Closing price, 5 = Volume 6 = Adjusted price

from a class "date" element. It specifies the starting date from which the data will be downloaded (date of the first observation)

to a class "date" element. It specifies until when the data will be downloaded (date of the last observation)

Value

a class "xts" element that contains the downloaded prices/volume of each specified company in the specified time-interval

Author(s)

Massimo Caprari, Anastasiya Varvus, Michele Cotugno (CVC)

References

Yahoo Finance

See Also

getSymbols.yahoo

Examples

```
'## Not run:
Price_Download ("^DJI", , "2019-05-01", "2019-05-10")


Stocks <- c("GE", "FORD", "BA", "^DJI", "DB")
Prices <- Price_Download(Stocks, 4, from = "2019-05-01", to = "2019-05-10")

'## End(Not run)
```

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2) Return_Download *Compute Daily Returns of Selected Stocks/Indices from Yahoo Finance*

Description

The function computes daily returns from Yahoo Finance for a single company or for a vector that contains the tickers of several companies. Note that this function is based on the functions getSymbols and dailyReturn of the quantmod package

Usage

```
Return_Download(ticker, price_type = 4, from, to)
```

Arguments

ticker a character vector of the Yahoo Finance ticker of the companies/indices for which the daily return will be computed.

price_type a number that specifies what is the base of the data on which the returns will be computed (default = 4). 1 = Daily price, 2 = Highest price, 3 = Lowest price 4 = Closing price, 6 = Adjusted price

from a class "date" element. It specifies the starting date on which the returns will be computed (date of the first observation). Note that, as the returns are calculated using the arithmetic approach, the first observation will be lost.

to a class "date" element. It specifies until when the returns will be computed (date of the last observation)

Value

a class "xts" element that contains the daily returns of each specified company in the specified time-interval

Author(s)

Massimo Caprari, Anastasiya Varvus, Michele Cotugno (CVC)

References

Yahoo Finance

See Also

getSymbols.yahoo, Price_Download, dailyReturn

Examples

'## Not run:
Return*Download("^DJI", price*type = 4, from="2019-05-01", to="2019-05-10")

Stocks <- c("GE", "FORD", "BA", "^DJI", "DB")
Returns <- Return_Download(Stocks, 4, from = "2019-05-01", to = "2019-05-10")

'## End(Not run)

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Vignettes are long form documentation commonly included in packages. Because they are part of the distribution of the package, they need to be as compact as possible. The `html_vignette` output type provides a custom style sheet (and tweaks some options) to ensure that the resulting html is as small as possible. The `html_vignette` format:

- Never uses retina figures
- Has a smaller default figure size
- Uses a custom CSS stylesheet instead of the default Twitter Bootstrap style

Vignette Info

Note the various macros within the `vignette` section of the metadata block above. These are required in order to instruct R how to build the vignette. Note that you should change the `title` field and the `\VignetteIndexEntry` to match the title of your vignette.

Styles

The `html_vignette` template includes a basic CSS theme. To override this theme you can specify your own CSS in the document metadata as follows:

```
output:
  rmarkdown::html_vignette:
    css: mystyles.css
```

Figures

The figure sizes have been customised so that you can easily put two images side-by-side.

```
plot(1:10)
plot(10:1)
```

You can enable figure captions by `fig_caption: yes` in YAML:

```
output:
  rmarkdown::html_vignette:
    fig_caption: yes
```

Then you can use the chunk option `fig.cap = "Your figure caption."` in **knitr**.

More Examples

References: https://cran.r-project.org/web/packages/roxygen2/vignettes/formatting.html
https://kbroman.org/pkg_primer/pages/depends.html

You can write math expressions, e.g. $Y = X\beta + \epsilon$, footnotes^[A footnote here.], and tables, e.g. using `knitr::kable()`.

```
knitr::kable(head(mtcars, 10))
```

Also a quote using `>`:

> "He who gives up [code] safety for [code] speed deserves neither." (via)