

Package ‘bundesbank’

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Type Package

Title Download Data from Bundesbank

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Description Download data from the time-series databases of the Bundesbank, the German central bank. See the overview at the Bundesbank website (<<https://www.bundesbank.de/en/statistics/time-series-databases>>) for available series. The package provides only a single function, `getSeries()`, which supports both traditional and real-time datasets; it will also download meta data if available. Downloaded data can automatically be arranged in various formats, such as data frames or 'zoo' series. The data may optionally be cached, so as to avoid repeated downloads of the same series.

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URL <http://enricoschumann.net/R/packages/bundesbank/index.htm>,
<https://github.com/enricoschumann/bundesbank>

Suggests zoo

NeedsCompilation no

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`getSeries`*Download Time-Series Data from Bundesbank*

Description

Download time-series from the website of the Bundesbank.

Usage

```
getSeries(series,  
          start = NULL,  
          end = format(Sys.Date(), "%Y-%m"),  
          return.class = "data.frame",  
          verbose = TRUE, dest.dir = NULL)
```

Arguments

<code>series</code>	The series name as given by the Bundesbank (e.g. 'BBK01.ST0316' for 3-Month EURIBOR).
<code>start</code>	character in format 'YYYY-MM' or 'YYYY'. If omitted, the function downloads data from the earliest available date. Currently ignored for real-time datasets.
<code>end</code>	character in format 'YYYY.MM' or 'YYYY'. If omitted, the function downloads data up to the most recent available date. Currently ignored for real-time datasets.
<code>return.class</code>	character or NULL. Currently supported are "zoo" and "data.frame". If NULL or "list", a list is returned for time-series. Real-time data are always returned as a data.frame .
<code>verbose</code>	logical
<code>dest.dir</code>	NULL or character . If character, it must be the path to an existing directory. See Details.

Details

The data can be downloaded in CSV-format from the Bundesbank's website <https://www.bundesbank.de/en/statistics/time-series-databases>.

If `dest.dir` is provided, the downloaded dataset gets a date prefix (today in format YYYYMMDD) and is stored in directory `dest.dir`. Before any download is attempted, the function checks whether a file with today's prefix exist in `dest.dir`; if yes, the file is used.

Value

A `data.frame` with two (or more) columns:

<code>dates</code>	dates (of class <code>Date</code>)
<code>values</code>	numerical values

The result for single time-series may have an attribute `info`, which is a character vector and holds additional information for series (such as its unit). See Examples.

Real-time datasets are always organised as a `data.frame`, in which the rows correspond to the reporting period and the columns to the publication date. Real-time datasets always have several attributes, in particular `date`, which corresponds to the publication date.

If a download fails, the function will print the error message, but evaluate to `NULL` (invisibly).

Author(s)

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Examples

```
## (Internet connection required)

series <- "BBK01.ST0304" ## Eonia
res <- getSeries(series) ## retrieve all available data
res <- getSeries(series, start = "2012-01")
res <- getSeries(series, end = "2012-01")
res <- getSeries(series, start = "2012-01", end = "2012-05")

## If the download fails, 'res' will be NULL.
## This typically happens when the website of the
## Bundesbank is not available.

if (!is.null(res)) {

  ## make 'zoo' series
  if (require("zoo")) {
    Eonia <- zoo(res$values, res$dates)
    plot(Eonia)
  }

  ## check comments
  writeLines(strwrap(paste("-", attr(res, "info")),
                    width = 60, exdent = 2))

  ## real-time dataset (Gross domestic product)
  gdp <- getSeries("BBKRT.A.DE.N.A.AG1.CA010.V.A")

  ## use caching
  ## ==> the example uses a temporary directory, but
  ## better is to use a less ephemeral destination,
  ## e.g. '~/Downloads/bundesbank'
  gdp <- getSeries("BBKRT.A.DE.N.A.AG1.CA010.V.A",
                  dest.dir = tempdir())
  ### Downloading data from Bundesbank ... Done.

  gdp <- getSeries("BBKRT.A.DE.N.A.AG1.CA010.V.A",
                  dest.dir = tempdir())
  ### Using cache ... Done.
}
```


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