Package ‘ecb’

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Type Package

Title Programmatic Access to the European Central Bank's Statistical Data Warehouse

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Description Provides an interface to the 'European Central Bank's Statistical Data Warehouse' API <https://sdw.ecb.europa.eu/>, allowing for programmatic retrieval of a vast quantity of statistical data.

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URL https://sdw.ecb.europa.eu/

Suggests knitr, rmarkdown, dplyr, lubridate, ggplot2, testthat, zoo

Imports curl, rsdmx, xml2, httr

VignetteBuilder knitr

RoxygenNote 7.1.1

NeedsCompilation no

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convert_dates

Format date variable retrieved from the SDW into a proper date variable

Description

Format date variable retrieved from the SDW into a proper date variable

Usage

convert_dates(x)

Arguments

x A vector of dates

Value

A date-formatted vector

Examples

hicp <- get_data("ICP.M.U2.N.000000.4.ANR")
hicp$obstime <- convert_dates(hicp$obstime)
str(hicp)

get_data

Retrieve data from the ECB Statistical Data Warehouse API

Description

Retrieve data from the ECB Statistical Data Warehouse API

Usage

get_data(key, filter = NULL, ...)

Arguments

key A character string identifying the series to be retrieved
filter A named list with additional filters (see details)
... Arguments passed to GET (e.g. timeout(10) to add maximum request time)
get_data

Details

The filter option of get_data() takes a named list of key-value pairs. If left blank, it returns all data for the current version.

Available filter parameters:

- **startPeriod & endPeriod**
  - YYYY for annual data (e.g.: 2013)
  - YYYY-S[1-2] for semi-annual data (e.g.: 2013-S1)
  - YYYY-Q[1-4] for quarterly data (e.g.: 2013-Q1)
  - YYYY-MM for monthly data (e.g.: 2013-01)
  - YYYY-W[01-53] for weekly data (e.g.: 2013-W01)
  - YYYY-MM-DD for daily data (e.g.: 2013-01-01)

- **updatedAfter**
  - A timestamp to retrieve the latest version of changed values in the database since a certain point in time
  - Example: filter = list(updatedAfter = 2009-05-15T14:15:00+01:00)

- **firstNObservations & lastNObservations**
  - Example: filter = list(firstNObservations = 12) retrieves the first 12 observations of all specified series

- **detail**
  - Possible options: full/dataonly/serieskeysonly/nodata
  - dataonly is the default
  - Use serieskeysonly or nodata to list series that match a certain query, without returning the actual data
  - An alternative to using serieskeys/nodata is the convenience function get_dimensions(), which returns a list of dataframes with dimensions and explanations (see extended example below).
  - full returns both the series values and all metadata. This entails retrieving much more data than with the ‘dataonly’ option.

- **includeHistory** (not currently implemented)
  - false (default) returns only version currently in production
  - true returns version currently in production, as well as all previous versions

See the SDW API for more details.

Value

A data frame

Examples

# Get monthly data on annualized euro area headline HICP
hicp <- get_data("ICP.M.U2.N.000000.4.ANR")
head(hicp)
get_description

Description
Retrieve full, human-readable description of a series

Usage
get_description(key)

Arguments
key A character string identifying the series to be retrieved

Value
A character vector

Examples
get_description("ICP.M.DE.N.000000+XEF000.4.ANR")
**get_dimensions**

*Retrieve dimensions of series in the ECB’s SDW*

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**Description**

Retrieve dimensions of series in the ECB’s SDW

**Usage**

```r
get_dimensions(key, ...)
```

**Arguments**

- `key`: A character string identifying the series to be retrieved
- `...`: Arguments passed to `GET` (e.g. `timeout(10)` to add maximum request time)

**Value**

A list of data frames, one for each series retrieved

**Examples**

```r
hicp_dims <- get_dimensions("ICP.M.U2.N.000000.4.ANR")
hicp_dims[[1]]
```
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