

Package ‘ecb’

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Type Package

Title Programmatic Access to the European Central Bank's Data Portal

Version 0.4.3

Date 2025-03-19

Description Provides an interface to the European Central Bank's Data Portal API, allowing for programmatic retrieval of a vast quantity of statistical data.

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URL <https://github.com/expersso/ecb>

BugReports <https://github.com/expersso/ecb/issues>

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

Imports curl, rsdmx, xml2, httr

VignetteBuilder knitr

RoxygenNote 7.3.2

Encoding UTF-8

NeedsCompilation no

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convert_dates	<i>Format date variable retrieved from the SDW into a proper date variable</i>
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Description

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

Usage

```
convert_dates(x)
```

Arguments

x	A vector of dates
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Value

A date-formatted vector

Examples

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

get_data	<i>Retrieve data from the ECB Statistical Data Warehouse API</i>
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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)

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/serieskeyonly/nodata`
 - `dataonly` is the default
 - Use `serieskeyonly` 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
hicip <- get_data("ICP.M.U2.N.000000.4.ANR")
head(hicip)
```

get_dataflows	<i>Retrieve data frame of all datasets in the ECB Statistical Data Warehouse</i>
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Description

Retrieve data frame of all datasets in the ECB Statistical Data Warehouse

Usage

```
get_dataflows(...)
```

Arguments

... Arguments passed to GET (e.g. timeout(10) to add maximum request time)

Value

A dataframe

Examples

```
df <- get_dataflows()
head(df)
```

get_description	<i>Get full, human-readable description of a series</i>
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Description

Get 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	<i>Retrieve dimensions of series in the ECB's SDW</i>
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Description

Retrieve dimensions of series in the ECB's SDW

Usage

```
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

```
h1cp_dims <- get_dimensions("ICP.M.U2.N.000000.4.ANR")  
h1cp_dims[[1]]
```

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