Package 'kofdata'

October 13, 2022

Type Package

Version 0.2

Title Get Data from the 'KOF Datenservice' API

Description Read Swiss time se-
ries data from the 'KOF Data' API, <https://datenservice.kof.ethz.ch>. The API pro-
vides macro economic time series data mostly about Switzerland. The package it-
self is a set of wrappers around the 'KOF Datenservice' API. The 'kofdata' package is able to con-
sume public information as well as data that requires an API token.

Depends R (>= 3.0.0), jsonlite (>= 1.1), httr

Imports xts, zoo,

Suggests tstools, rmarkdown, testthat

URL https://github.com/KOF-ch/kofdata

BugReports https://github.com/KOF-ch/kofdata/issues

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Repository CRAN

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R topics documented:

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cantons   *Vector of Swiss cantons*

Description

Vector of Swiss cantons

Usage

```
cantons(full = F)
```

Arguments

full   logical full names or two letter classification. defaults to FALSE.

---

download_cached_file   *get_dataset*

Description

Download a predefined set of time series.

Usage

```
download_cached_file(username, api_key, file_to_download, target = NULL)
```

Arguments

username	Your dataservice user name
api_key	**character** Your API key. An API key is needed if accessing non-public timeseries. If downloading public timeseries parameter can be omitted.
file_to_download	
	The name of the file to retrieve.
target	Path to the location, at which to store the file. If NULL, the file will be saved to the working directory.

Examples

```
f <- download_cached_file("kofdatapkg", "313984fcd9f343d3961891319b0ed321",
"empty.txt",file.path(tempdir(),"empty.txt"))
```

---

get_collection   *Download Pre-Defined collection*

Description

Download a predefined collection of time series.

Usage

```
get_collection(collection_name, api_key = NULL, show_progress = FALSE)
```

Arguments

collection_name	
	The name of the collection you wish to download. For a list of available collections, go to ["list_available_collections"]
api_key	**character** Your API key. An API key is needed if accessing non-public timeseries. If downloading public timeseries parameter can be omitted.
show_progress	If collection to true, shows a progress bar of the data being downloaded.

Examples

```
get_collection("ds_kmi_mixed_freq",show_progress = TRUE)
```

---

get_dataset   *Download Pre-Defined Dataset*

Description

This function is deprecated. Use `get_collection` instead. Download a predefined set of time series.

Usage

```
get_dataset(set_name, api_key = NULL, show_progress = FALSE)
```

Arguments

set_name	The name of the set you wish to download. For a list of available sets, go to ["list_available_sets"]
api_key	**character** Your API key. An API key is needed if accessing non-public timeseries. If downloading public timeseries parameter can be omitted.
show_progress	If set to true, shows a progress bar of the data being downloaded.

---

get_legacy_key   *Get a Former Time Series Identifier from KOF Database*

Description

Get legacy keys given new time series keys. Note that not all records need to have a legacy key because there are more new keys than old keys.

Usage

```
get_legacy_key(ts_keys)
```

Arguments

ts_keys	A vector of time series keys

Value

A named list of legacy keys

---

get_metadata *Get Localized Meta Information*

Description

Download metadata given a time series key.

Usage

```
get_metadata(ts_keys, locale = c("en", "de", "fr", "it"))
```

Arguments

ts_keys   A vector of time series keys.

locale   character ISO-2-digit language of requested metadata. Meta data are for survey
            related typically available in English, German, French and Italian. Non survey
            data are not provided with meta information, yet.

Value

A named list of lists containing metadata.

Examples

```
get_metadata("kofbarometer","en")
```

---

get_remaining_quota *Check Remaining Quota*

Description

Query the API for the number of time series downloads remaining in the current month.

Usage

```
get_remaining_quota(api_key)
```

Arguments

api_key   **character** Your API key. An API key is needed if accessing non-public time-
            series. If downloading public timeseries parameter can be omitted.

Examples

```
get_remaining_quota("313984fcd9f343d3961891319b0ed321")
```

---

get_time_series   *Get Time Series form KOF Datenservice API*

Description

Download time series data from the KOF web API.

Usage

```
get_time_series(ts_keys, api_key = NULL, show_progress = FALSE)
```

Arguments

ts_keys	A vector of timeseries keys
api_key	**character** Your API key. An API key is needed if accessing non-public time-series. If downloading public timeseries parameter can be omitted.
show_progress	If set to true, shows a progress bar of the data being downloaded. year-month-day, otherwise only year and month.

Examples

```
get_time_series("kofbarometer")
```

---

list_available_collections

List Available collection Names and Their Description

Description

collections are pre-defined lists of time series. collections are the convenient alternative to concatenating many series in an URL.

Usage

```
list_available_collections(api_key = NULL)
```

Arguments

api_key	**character** Your API key. An API key is needed if accessing non-public time-series. If downloading public timeseries parameter can be omitted.

Value

A data frame with the names, descriptions and public availability of collections. These collections can be downloaded via get_collection.

Examples

```
list_available_collections()
```

---

list_available_sets   *List Available Set Names and Their Description*

Description

This function is deprecated. Use `list_available_collections` instead. Sets are pre-defined lists of time series. Sets are the convenient alternative to concatenating many series in an URL.

Usage

```
list_available_sets(api_key = NULL)
```

Arguments

api_key   **character** Your API key. An API key is needed if accessing non-public time-series. If downloading public timeseries parameter can be omitted.

Value

A data frame with the names, descriptions and public availability of datasets. These sets can be downloaded via get_dataset.

---

list_cached_files   *Show Cached Files of Specific User*

Description

Some users get individually composed, cached files. If you ordered such a service you can list all files available to you.

Usage

```
list_cached_files(username, api_key)
```

Arguments

username   Your dataservice user name

api_key   **character** Your API key. An API key is needed if accessing non-public time-series. If downloading public timeseries parameter can be omitted.

Examples

```
available_files <- list_cached_files("kofdatapkg",
"313984fcd9f343d3961891319b0ed321")
available_files
```

`list_keys_in_collection`

List All Keys in a Collection

Description

List the keys of all time series in a collection. To learn more about specific keys, use get_metadata.

Usage

```
list_keys_in_collection(collectionname, api_key = NULL)
```

Arguments

collectionname	The name of the collection
api_key	**character** Your API key. An API key is needed if accessing non-public time-series. If downloading public timeseries parameter can be omitted.

Value

If a single collection name is provided, a vector of time series keys. If multiple collection names are provided, a list of vectors of time series keys.

Examples

```
list_keys_in_collection("ds_kmi_mixed_freq")
```

`list_keys_in_set` *List All Keys in a Set*

Description

List the keys of all time series in a set. To learn more about specific keys, use get_metadata.

Usage

```
list_keys_in_set(setname, api_key = NULL)
```

Arguments

setname	The name of the set
api_key	**character** Your API key. An API key is needed if accessing non-public time-series. If downloading public timeseries parameter can be omitted.

Value

If a single set name is provided, a vector of time series keys. If multiple set names are provided, a list of vectors of time series keys.

list_public_keys	*List Keys for All Publicly Available Time Series*

Description

This function will be removed from future versions of kofdata.

Usage

```
list_public_keys()
```

Value

An array of all public time series keys.

param_defs	*Common parameters*

Description

Common parameters

Arguments

api_key   **character** Your API key. An API key is needed if accessing non-public time-series. If downloading public timeseries parameter can be omitted.

translate_legacy_keys	*translate_legacy_keys*

Description

Gives ts_keys for the given legacy keys.

Usage

```
translate_legacy_keys(legacy_keys, chunksize = 100)
```

Arguments

legacy_keys   A vector of legacy keys for which to find new keys

chunksize   integer to set chunksize in order to avoid URLs that are too long.

Value

A list of vectors of new ts_keys

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