

Package ‘bbk’

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Title Client for Central Bank APIs

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Description A client for retrieving data and metadata from central bank APIs including 'Banco de España' (BdE), 'Banco de Portugal' (BdP), 'Bank for International Settlements' (BIS), 'Bank of Canada' (BoC), 'Bank of England' (BoE), 'Bank of Japan' (BoJ), 'Banque de France' (BdF), 'Deutsche Bundesbank' (BBk), 'European Central Bank' (ECB), 'National Bank of Poland' (NBP), 'Norges Bank' (NoB), 'Oesterreichische Nationalbank' (OeNB), 'Sveriges Riksbank' (SRb), and 'Swiss National Bank' (SNB).

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URL <https://m-muecke.github.io/bbk/>, <https://github.com/m-muecke/bbk>

BugReports <https://github.com/m-muecke/bbk/issues>

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bbk_data	<i>Fetch Deutsche Bundesbank (BBk) data</i>
----------	---

Description

Retrieve time series data from the Bundesbank SDMX Web Service.

Usage

```
bbk_data(
  flow,
  key = NULL,
  start_period = NULL,
  end_period = NULL,
  first_n = NULL,
  last_n = NULL,
  updated_after = NULL
)
```

Arguments

flow	(character(1)) The flow to query, 5-8 characters. See bbk_metadata() for available dataflows.
key	(NULL character()) The series keys to query.
start_period	(NULL character(1) integer(1)) The start date of the data. Supported formats: <ul style="list-style-type: none"> • YYYY for annual data (e.g., '2019') • YYYY-S[1-2] for semi-annual data (e.g., "2019-S1") • YYYY-Q[1-4] for quarterly data (e.g., "2019-Q1") • YYYY-MM for monthly data (e.g., "2019-01") • YYYY-W[01-53] for weekly data (e.g., "2019-W01") • YYYY-MM-DD for daily and business data (e.g., "2019-01-01") If NULL, no start date restriction is applied (data retrieved from the earliest available date). Default NULL.
end_period	(NULL character(1) integer(1)) The end date of the data, in the same format as start_period. If NULL, no end date restriction is applied (data retrieved up to the most recent available date). Default NULL.
first_n	(NULL numeric(1)) Number of observations to retrieve from the start of the series. If NULL, no restriction is applied. Default NULL.

last_n	(NULL numeric(1)) Number of observations to retrieve from the end of the series. If NULL, no restriction is applied. Default NULL.
updated_after	(NULL character(1) Date(1) POSIXct(1)) Retrieve only observations updated after the given timestamp (e.g., "2024-06-01T00:00:00"). Useful for incremental retrieval. If NULL, no restriction is applied. Default NULL.

Value

A `data.table::data.table()` with the requested data.

Source

<https://www.bundesbank.de/en/statistics/time-series-databases/help-for-sdmx-web-service/web-service-interface-data>

See Also

Other data: `bbk_series()`, `bde_data()`, `bde_latest()`, `bdf_codelist()`, `bdf_data()`, `bdf_dataset()`, `bdp_data()`, `bis_data()`, `boc_data()`, `boe_data()`, `boj_data()`, `ecb_data()`, `nbp_fx_rates()`, `nbp_gold()`, `nob_data()`, `onb_data()`, `snb_data()`, `srb_cross_rates()`, `srb_data()`

Examples

```
# fetch all data for a given flow and key
data <- bbk_data("BBSIS", "D.I.ZAR.ZI.EUR.S1311.B.A604.R10XX.R.A.A._Z._Z.A")
head(data)

# fetch data for multiple keys
data <- bbk_data("BBEX3", c("M.ISK.EUR", "USD.CA.AC.A01"))
head(data)

# specified period (start date-end date) for daily data
data <- bbk_data(
  "BBSIS", "D.I.ZAR.ZI.EUR.S1311.B.A604.R10XX.R.A.A._Z._Z.A",
  start_period = "2020-01-01",
  end_period = "2020-08-01"
)
head(data)

# or only specify the start date
data <- bbk_data(
  "BBSIS", "D.I.ZAR.ZI.EUR.S1311.B.A604.R10XX.R.A.A._Z._Z.A",
  start_period = "2024-04-01"
)
head(data)
```

bbk_dimension	<i>Fetch Deutsche Bundesbank (BBk) dimensions</i>
---------------	---

Description

Retrieve the dimension structure for a given dataflow from the Bundesbank SDMX Web Service.

Usage

```
bbk_dimension(id)
```

Arguments

id	(character(1)) The id of the data structure definition to query (e.g., "BBK_BBSIS").
----	---

Value

A `data.table::data.table()` with columns:

id	The dimension id (e.g., "BBK_STD_FREQ", "BBK_STD_AREA")
position	The position of the dimension in the series key
codelist	The id of the associated codelist

Source

<https://www.bundesbank.de/en/statistics/time-series-databases/help-for-sdmx-web-service/web-service-interface-metadata>

See Also

Other metadata: `bbk_metadata()`, `bdp_dataset()`, `bdp_dimension()`, `bdp_domain()`, `bdp_series()`, `bis_dimension()`, `bis_metadata()`, `boj_metadata()`, `ecb_dimension()`, `ecb_metadata()`, `nob_dimension()`, `nob_metadata()`, `onb_dimension()`, `onb_frequency()`, `onb_hierarchy()`, `onb_metadata()`, `onb_toc()`, `snb_dimension()`, `srb_calendar()`, `srb_series()`

Examples

```
bbk_dimension("BBK_ERX")
```

bbk_metadata	<i>Fetch Deutsche Bundesbank (BBk) metadata</i>
--------------	---

Description

Retrieve metadata from the Bundesbank time series database via the SDMX Web Service.

Usage

```
bbk_metadata(type, id = NULL, lang = "en")
```

Arguments

type	(character(1)) The type of metadata to query. One of: "datastructure", "dataflow", "codelist", or "concept".
id	(NULL character(1)) The id to query. Default NULL.
lang	(character(1)) Language to query, either "en" or "de". Default "en".

Value

A `data.table::data.table()` with the requested metadata. The columns are:

id	The id of the metadata
name	The name of the metadata

Source

<https://www.bundesbank.de/en/statistics/time-series-databases/help-for-sdmx-web-service/web-service-interface-metadata>

See Also

Other metadata: `bbk_dimension()`, `bdp_dataset()`, `bdp_dimension()`, `bdp_domain()`, `bdp_series()`, `bis_dimension()`, `bis_metadata()`, `boj_metadata()`, `ecb_dimension()`, `ecb_metadata()`, `nob_dimension()`, `nob_metadata()`, `onb_dimension()`, `onb_frequency()`, `onb_hierarchy()`, `onb_metadata()`, `onb_toc()`, `snb_dimension()`, `srb_calendar()`, `srb_series()`

Examples

```
bbk_metadata("datastructure")
bbk_metadata("dataflow", "BBSIS")
bbk_metadata("codelist", "CL_BBK_ACIP_ASSET_LIABILITY")
bbk_metadata("concept", "CS_BBK_BSPL")
```

`bbk_series`*Fetch the Deutsche Bundesbank (BBk) series*

Description

Retrieve a single series by its key via the Bundesbank SDMX Web Service.

Usage

```
bbk_series(key)
```

Arguments

key	(NULL character()) The series keys to query.
-----	---

Value

A `data.table::data.table()` with the requested data.

Source

<https://www.bundesbank.de/en/statistics/time-series-databases/help-for-sdmx-web-service/web-service-interface-data>

See Also

`bbk_data()` for an endpoint with more options.

Other data: `bbk_data()`, `bde_data()`, `bde_latest()`, `bdf_codelist()`, `bdf_data()`, `bdf_dataset()`, `bdp_data()`, `bis_data()`, `boc_data()`, `boe_data()`, `boj_data()`, `ecb_data()`, `nbp_fx_rates()`, `nbp_gold()`, `nob_data()`, `onb_data()`, `snb_data()`, `srb_cross_rates()`, `srb_data()`

Examples

```
bbk_series("BBEX3.M.DKK.EUR.BB.AC.A01")
bbk_series("BBAF3.Q.F41.S121.DE.S1.W0.LE.N._X.B")
bbk_series("BBBK11.D.TTA000")
```

bde_data	<i>Fetch Banco de España (BdE) data</i>
----------	---

Description

Retrieve time series data from the BdE statistics API.

Usage

```
bde_data(key, time_range = NULL, lang = "en")
```

Arguments

key	(character()) The series keys to query.
time_range	(NULL character(1) integer(1)) The time range for the data. Can be an annual range (e.g., 2024) or a frequency-based code: <ul style="list-style-type: none"> • Daily frequency (D): "3M" (last 3 months), "12M", "36M" • Monthly frequency (M): "30M", "60M", "MAX" (entire series) • Quarterly frequency (Q): "30M", "60M", "MAX" • Annual frequency (A): "60M", "MAX" If NULL (default), returns the smallest range for the series frequency (e.g., "30M" for monthly series).
lang	(character(1)) Language to query, either "en" or "es".

Details

You can search for the series codes in the **BIEST** application or in the tables published by the Banco de España.

Value

A `data.table::data.table()` with the requested data.

Source

<https://www.bde.es/webbe/en/estadisticas/recursos/api-estadisticas-bde.html>

See Also

Other data: `bbk_data()`, `bbk_series()`, `bde_latest()`, `bdf_codelist()`, `bdf_data()`, `bdf_dataset()`, `bdp_data()`, `bis_data()`, `boc_data()`, `boe_data()`, `boj_data()`, `ecb_data()`, `nbp_fx_rates()`, `nbp_gold()`, `nob_data()`, `onb_data()`, `snb_data()`, `srb_cross_rates()`, `srb_data()`

Examples

```
bde_data("D_1NBAF472", time_range = "30M")
bde_data(c("DTNPDE2010_P0000P_PS_APU", "DTNSEC2010_S0000P_APU_SUMAMOVIL"), time_range = "MAX")
bde_data("DEEQ.N.ES.W1.S1.S1.T.B.G._Z._Z._Z.EUR._T._X.N.ALL", time_range = 2024)
```

bde_latest	<i>Fetch latest Banco de España (BdE) data</i>
------------	--

Description

Retrieve the most recently published value for one or more series from the BdE statistics API.

Usage

```
bde_latest(key, lang = "en")
```

Arguments

key	(character()) The series keys to query.
lang	(character(1)) Language to query, either "en" or "es".

Value

A `data.table::data.table()` with the latest observation per series.

Source

<https://www.bde.es/webbe/en/estadisticas/recursos/api-estadisticas-bde.html>

See Also

Other data: `bbk_data()`, `bbk_series()`, `bde_data()`, `bdf_codelist()`, `bdf_data()`, `bdf_dataset()`, `bdp_data()`, `bis_data()`, `boc_data()`, `boe_data()`, `boj_data()`, `ecb_data()`, `nbp_fx_rates()`, `nbp_gold()`, `nob_data()`, `onb_data()`, `snb_data()`, `srb_cross_rates()`, `srb_data()`

Examples

```
bde_latest("D_1NBAF472")
bde_latest(c("D_1NBAF472", "DTNPDE2010_P0000P_PS_APU"))
```

bdf_codelist	<i>Fetch Banque de France (BdF) codelists</i>
--------------	---

Description

Fetch Banque de France (BdF) codelists

Usage

```
bdf_codelist(..., lang = "en")
```

Arguments

...	(any) Extra arguments appended to the API request. Combined with the default arguments with <code>modifyList()</code> .
lang	(character(1)) Language to query. Default "en".

Value

A `data.table::data.table()` with the requested data.

Source

<https://webstat.banque-france.fr/en/pages/guide-migration-api/>

See Also

Other data: `bbk_data()`, `bbk_series()`, `bde_data()`, `bde_latest()`, `bdf_data()`, `bdf_dataset()`, `bdp_data()`, `bis_data()`, `boc_data()`, `boe_data()`, `boj_data()`, `ecb_data()`, `nbp_fx_rates()`, `nbp_gold()`, `nob_data()`, `onb_data()`, `snb_data()`, `srb_cross_rates()`, `srb_data()`

Examples

```
## Not run:  
bdf_codelist()  
  
# filter for a specific codelist  
bdf_codelist(where = "codelist_id = 'CL_FREQ'")  
  
## End(Not run)
```

bdf_data	<i>Fetch Banque de France (BdF) data</i>
----------	--

Description

Retrieve time series data from the BdF Webstat API.

Usage

```
bdf_data(  
  ...,  
  key = NULL,  
  start_date = NULL,  
  end_date = NULL,  
  lang = "en",  
  api_key = bdf_key()  
)
```

Arguments

...	(any) Extra arguments appended to the API request. Combined with the default arguments with <code>modifyList()</code> .
key	(NULL character(1)) The series key to query. Default NULL.
start_date	(NULL character(1) Date(1)) Start date of the data. Default NULL.
end_date	(NULL character(1) Date(1)) End date of the data. Default NULL.
lang	(character(1)) Language to query. Default "en".
api_key	(character(1)) API key to use for the request. Defaults to the value returned by <code>bdf_key()</code> , which reads from the <code>BANQUEDEFrance_KEY</code> environment variable.

Value

A `data.table::data.table()` with the requested data.

Source

<https://webstat.banque-france.fr/en/pages/guide-migration-api/>

See Also

Other data: [bbk_data\(\)](#), [bbk_series\(\)](#), [bde_data\(\)](#), [bde_latest\(\)](#), [bdf_codelist\(\)](#), [bdf_dataset\(\)](#), [bdp_data\(\)](#), [bis_data\(\)](#), [boc_data\(\)](#), [boe_data\(\)](#), [boj_data\(\)](#), [ecb_data\(\)](#), [nbp_fx_rates\(\)](#), [nbp_gold\(\)](#), [nob_data\(\)](#), [onb_data\(\)](#), [snb_data\(\)](#), [srb_cross_rates\(\)](#), [srb_data\(\)](#)

Examples

```
## Not run:
bdf_data(key = "CONJ2.M.R24.T.SM.0RG24.EFTPM100.10")

# inflation rate
bdf_data(key = "ICP.M.FR.N.000000.4.ANR")

# or with a date filter
bdf_data(key = "ICP.M.FR.N.000000.4.ANR", start_date = "2025-01-01", end_date = "2025-06-30")

# advanced filter with where clause
bdf_data(key = "ICP.M.FR.N.000000.4.ANR", where = "time_period_start >= date'2025-01-01'")

## End(Not run)
```

bdf_dataset

Fetch Banque de France (BdF) datasets

Description

Fetch Banque de France (BdF) datasets

Usage

```
bdf_dataset(..., lang = "en")
```

Arguments

...	(any) Extra arguments appended to the API request. Combined with the default arguments with modifyList() .
lang	(character(1)) Language to query. Default "en".

Value

A `data.table::data.table()` with the requested data.

Source

<https://webstat.banque-france.fr/en/pages/guide-migration-api/>

See Also

Other data: [bbk_data\(\)](#), [bbk_series\(\)](#), [bde_data\(\)](#), [bde_latest\(\)](#), [bdf_codelist\(\)](#), [bdf_data\(\)](#), [bdp_data\(\)](#), [bis_data\(\)](#), [boc_data\(\)](#), [boe_data\(\)](#), [boj_data\(\)](#), [ecb_data\(\)](#), [nbp_fx_rates\(\)](#), [nbp_gold\(\)](#), [nob_data\(\)](#), [onb_data\(\)](#), [snb_data\(\)](#), [srb_cross_rates\(\)](#), [srb_data\(\)](#)

Examples

```
## Not run:
bdf_dataset()

# structure of a dataset
bdf_dataset(where = "dataset_id = 'CONJ2'")

## End(Not run)
```

bdp_data

Fetch Banco de Portugal (BdP) data

Description

Retrieve time series data from the BPstat API.

Usage

```
bdp_data(
  domain_id,
  dataset_id,
  series_ids = NULL,
  start_date = NULL,
  end_date = NULL,
  last_n = NULL,
  updated_after = NULL,
  lang = "en"
)
```

Arguments

domain_id	(integer(1)) The domain ID. Use bdp_domain() to list available domains.
dataset_id	(character(1)) The dataset ID within the domain.
series_ids	(NULL integer()) Optional series IDs to filter the dataset.
start_date	(NULL character(1) Date(1)) Start date of the data.

end_date	(NULL character(1) Date(1)) End date of the data.
last_n	(NULL integer(1)) Return only the last n observations per series.
updated_after	(NULL character(1) Date(1) POSIXct(1)) Retrieve only observations published after the given timestamp (e.g., "2024-06-01T00:00:00"). Useful for incremental retrieval. If NULL, no restriction is applied. Default NULL.
lang	(character(1)) Language for labels, either "en" or "pt".

Details

The BPstat API uses a two-step workflow: first look up the series metadata with `bdp_series()` to find the `domain_id` and `dataset_id`, then use those to fetch the actual observations.

You can browse available series at the [BPstat portal](#).

Value

A `data.table::data.table()` with the requested data.

Source

<https://bpstat.bportugal.pt/data/docs>

See Also

Other data: `bbk_data()`, `bbk_series()`, `bde_data()`, `bde_latest()`, `bdf_codelist()`, `bdf_data()`, `bdf_dataset()`, `bis_data()`, `boc_data()`, `boe_data()`, `boj_data()`, `ecb_data()`, `nbp_fx_rates()`, `nbp_gold()`, `nob_data()`, `onb_data()`, `snb_data()`, `srb_cross_rates()`, `srb_data()`

Examples

```
# Portuguese GDP (annual, current prices)
bdp_data(54L, "ce3e4e50cda325537eff729ef64037cd", series_ids = 12518356L)
```

bdp_dataset	<i>Fetch Banco de Portugal (BdP) datasets</i>
-------------	---

Description

Retrieve the list of datasets for a given domain from the BPstat API.

Usage

```
bdp_dataset(domain_id, lang = "en")
```

Arguments

domain_id (integer(1))
The domain ID. Use `bdp_domain()` to list available domains.

lang (character(1))
Language for labels, either "en" or "pt".

Value

A `data.table::data.table()` with available datasets.

Source

<https://bpstat.bportugal.pt/data/docs>

See Also

Other metadata: `bbk_dimension()`, `bbk_metadata()`, `bdp_dimension()`, `bdp_domain()`, `bdp_series()`, `bis_dimension()`, `bis_metadata()`, `boj_metadata()`, `ecb_dimension()`, `ecb_metadata()`, `nob_dimension()`, `nob_metadata()`, `onb_dimension()`, `onb_frequency()`, `onb_hierarchy()`, `onb_metadata()`, `onb_toc()`, `snb_dimension()`, `srb_calendar()`, `srb_series()`

Examples

```
bdp_dataset(54L)
```

bdp_dimension	<i>Fetch Banco de Portugal (BdP) dimensions</i>
---------------	---

Description

Retrieve the list of dimensions for a given domain, or the categories within a single dimension.

Usage

```
bdp_dimension(domain_id, dimension_id = NULL, lang = "en")
```

Arguments

domain_id (integer(1))
The domain ID. Use `bdp_domain()` to list available domains.

dimension_id (NULL | integer(1))
Optional dimension ID. If NULL, all dimensions for the domain are returned. If specified, the categories within that dimension are returned.

lang (character(1))
Language for labels, either "en" or "pt".

Value

A `data.table::data.table()` with dimensions or categories.

Source

<https://bpstat.bportugal.pt/data/docs>

See Also

Other metadata: `bbk_dimension()`, `bbk_metadata()`, `bdp_dataset()`, `bdp_domain()`, `bdp_series()`, `bis_dimension()`, `bis_metadata()`, `boj_metadata()`, `ecb_dimension()`, `ecb_metadata()`, `nob_dimension()`, `nob_metadata()`, `onb_dimension()`, `onb_frequency()`, `onb_hierarchy()`, `onb_metadata()`, `onb_toc()`, `snb_dimension()`, `srb_calendar()`, `srb_series()`

Examples

```
bdp_dimension(54L)
```

bdp_domain

Fetch Banco de Portugal (BdP) domains

Description

Retrieve the list of available statistical domains from the BPstat API, or details for a single domain.

Usage

```
bdp_domain(domain_id = NULL, lang = "en")
```

Arguments

domain_id	(NULL integer(1)) Optional domain ID. If NULL, all domains are returned.
lang	(character(1)) Language for labels, either "en" or "pt".

Value

A `data.table::data.table()` with available domains.

Source

<https://bpstat.bportugal.pt/data/docs>

See Also

Other metadata: `bbk_dimension()`, `bbk_metadata()`, `bdp_dataset()`, `bdp_dimension()`, `bdp_series()`, `bis_dimension()`, `bis_metadata()`, `boj_metadata()`, `ecb_dimension()`, `ecb_metadata()`, `nob_dimension()`, `nob_metadata()`, `onb_dimension()`, `onb_frequency()`, `onb_hierarchy()`, `onb_metadata()`, `onb_toc()`, `snb_dimension()`, `srb_calendar()`, `srb_series()`

Examples

```
bdp_domain()
```

<code>bdp_series</code>	<i>Fetch Banco de Portugal (BdP) series metadata</i>
-------------------------	--

Description

Retrieve metadata for one or more series from the BPstat API. This is useful to discover the `domain_id` and `dataset_id` needed for `bdp_data()`.

Usage

```
bdp_series(series_ids, lang = "en")
```

Arguments

<code>series_ids</code>	(<code>integer()</code>) One or more series IDs to look up.
<code>lang</code>	(<code>character(1)</code>) Language for labels, either "en" or "pt".

Value

A `data.table::data.table()` with series metadata including `domain_id` and `dataset_id`.

Source

<https://bpstat.bportugal.pt/data/docs>

See Also

Other metadata: `bbk_dimension()`, `bbk_metadata()`, `bdp_dataset()`, `bdp_dimension()`, `bdp_domain()`, `bis_dimension()`, `bis_metadata()`, `boj_metadata()`, `ecb_dimension()`, `ecb_metadata()`, `nob_dimension()`, `nob_metadata()`, `onb_dimension()`, `onb_frequency()`, `onb_hierarchy()`, `onb_metadata()`, `onb_toc()`, `snb_dimension()`, `srb_calendar()`, `srb_series()`

Examples

```
bdp_series(12518356L)
```

bis_data

Fetch Bank for International Settlements (BIS) data

Description

Retrieve time series data from the BIS SDMX Web Service.

Usage

```
bis_data(
  flow,
  key = NULL,
  start_period = NULL,
  end_period = NULL,
  first_n = NULL,
  last_n = NULL,
  updated_after = NULL
)
```

Arguments

flow	(character(1)) The dataflow to query. See bis_metadata() for available dataflows.
key	(NULL character()) The series keys to query using dot-separated dimension values (e.g., "M.CH"). Use + for multiple values in one dimension (e.g., "M.CH+US"). If NULL, all data for the flow is returned. Default NULL.
start_period	(NULL character(1) integer(1)) Start date of the data. Supported formats: <ul style="list-style-type: none"> • YYYY for annual data (e.g., 2019) • YYYY-S[1-2] for semi-annual data (e.g., "2019-S1") • YYYY-Q[1-4] for quarterly data (e.g., "2019-Q1") • YYYY-MM for monthly data (e.g., "2019-01") • YYYY-MM-DD for daily data (e.g., "2019-01-01") If NULL, no start date restriction is applied (data retrieved from the earliest available date). Default NULL.
end_period	(NULL character(1) integer(1)) End date of the data, in the same format as start_period. If NULL, no end date restriction is applied (data retrieved up to the most recent available date). Default NULL.

first_n	(NULL numeric(1)) Number of observations to retrieve from the start of the series. If NULL, no restriction is applied. Default NULL.
last_n	(NULL numeric(1)) Number of observations to retrieve from the end of the series. If NULL, no restriction is applied. Default NULL.
updated_after	(NULL character(1) Date(1) POSIXct(1)) Retrieve only observations updated after the given timestamp (e.g., "2024-06-01T00:00:00"). Useful for incremental retrieval. If NULL, no restriction is applied. Default NULL.

Value

A `data.table::data.table()` with the requested data.

Source

<https://stats.bis.org/api-doc/v1/>

See Also

Other data: `bbk_data()`, `bbk_series()`, `bde_data()`, `bde_latest()`, `bdf_codelist()`, `bdf_data()`, `bdf_dataset()`, `bdp_data()`, `boc_data()`, `boe_data()`, `boj_data()`, `ecb_data()`, `nbp_fx_rates()`, `nbp_gold()`, `nob_data()`, `onb_data()`, `snb_data()`, `srb_cross_rates()`, `srb_data()`

Examples

```
# fetch Swiss central bank policy rate
bis_data("WS_CBPOL", "M.CH", last_n = 5L)

# fetch effective exchange rates
bis_data("WS_EER", "M.N.B.CH", start_period = "2020-01")
```

bis_dimension

Fetch Bank for International Settlements (BIS) dimensions

Description

Retrieve the dimension structure for a given dataflow from the BIS SDMX Web Service.

Usage

```
bis_dimension(id)
```

Arguments

`id` (character(1))
The id of the data structure definition to query (e.g., "BIS_CBPOL").

Value

A `data.table::data.table()` with columns:

`id` The dimension id (e.g., "FREQ", "REF_AREA")
`position` The position of the dimension in the series key
`codelist` The id of the associated codelist (e.g., "CL_FREQ")

Source

<https://stats.bis.org/api-doc/v1/>

See Also

Other metadata: `bbk_dimension()`, `bbk_metadata()`, `bdp_dataset()`, `bdp_dimension()`, `bdp_domain()`, `bdp_series()`, `bis_metadata()`, `boj_metadata()`, `ecb_dimension()`, `ecb_metadata()`, `nob_dimension()`, `nob_metadata()`, `onb_dimension()`, `onb_frequency()`, `onb_hierarchy()`, `onb_metadata()`, `onb_toc()`, `snb_dimension()`, `srb_calendar()`, `srb_series()`

Examples

```
bis_dimension("BIS_CBPOL")
```

`bis_metadata`

Fetch Bank for International Settlements (BIS) metadata

Description

Retrieve metadata from the BIS SDMX Web Service.

Usage

```
bis_metadata(type, id = NULL)
```

Arguments

`type` (character(1))
The type of metadata to query. One of: "datastructure", "dataflow", "codelist", or "concept".

`id` (NULL | character(1))
The id to query. Default NULL.

Value

A `data.table::data.table()` with the requested metadata.

Source

<https://stats.bis.org/api-doc/v1/>

See Also

Other metadata: `bbk_dimension()`, `bbk_metadata()`, `bdp_dataset()`, `bdp_dimension()`, `bdp_domain()`, `bdp_series()`, `bis_dimension()`, `boj_metadata()`, `ecb_dimension()`, `ecb_metadata()`, `nob_dimension()`, `nob_metadata()`, `onb_dimension()`, `onb_frequency()`, `onb_hierarchy()`, `onb_metadata()`, `onb_toc()`, `snb_dimension()`, `srb_calendar()`, `srb_series()`

Examples

```
bis_metadata("dataflow")
bis_metadata("datastructure", "BIS_CBPOL")
bis_metadata("codelist", "CL_FREQ")
```

boc_catalog

Fetch Bank of Canada (BoC) available series or group

Description

Access all available series or groups from the Bank of Canada Valet API.

Usage

```
boc_catalog(type = "groups")
```

Arguments

`type` (character(1))
Set of data to return. One of "groups" or "series". Default "groups".

Value

A `data.table::data.table()` with the requested data.

Source

<https://www.bankofcanada.ca/valet/docs>

Examples

```
## Not run:
catalog <- boc_catalog()
head(catalog)

# filter for effective exchange rate series
dt <- catalog[grepl("CEER", label)]
head(dt)

## End(Not run)
```

boc_data

Fetch Bank of Canada (BoC) data

Description

Retrieve time series data from the Bank of Canada Valet API.

Usage

```
boc_data(
  group_name = NULL,
  series_name = NULL,
  start_date = NULL,
  end_date = NULL
)
```

Arguments

group_name	(NULL character(1))	Name of the group. Only one of group_name or series_name can be used.
series_name	(NULL character())	Name of the series.
start_date	(NULL Date(1) character(1))	Start date of the data. Default NULL.
end_date	(NULL Date(1) character(1))	End date of the data. Default NULL.

Value

A `data.table::data.table()` with the requested data.

Source

<https://www.bankofcanada.ca/valet/docs>

See Also

Other data: [bbk_data\(\)](#), [bbk_series\(\)](#), [bde_data\(\)](#), [bde_latest\(\)](#), [bdf_codelist\(\)](#), [bdf_data\(\)](#), [bdf_dataset\(\)](#), [bdp_data\(\)](#), [bis_data\(\)](#), [boe_data\(\)](#), [boj_data\(\)](#), [ecb_data\(\)](#), [nbp_fx_rates\(\)](#), [nbp_gold\(\)](#), [nob_data\(\)](#), [onb_data\(\)](#), [snb_data\(\)](#), [srb_cross_rates\(\)](#), [srb_data\(\)](#)

Examples

```
## Not run:
# fetch all data for a single group
dt <- boc_data(group_name = "FX_RATES_DAILY")
head(dt)

# or for multiple series ids
dt <- boc_data(
  series_name = c("FXUSDCAD", "FXEURCAD"),
  start_date = "2023-01-23",
  end_date = "2023-07-19"
)
head(dt)

## End(Not run)
```

boc_fx_rates	<i>Fetch Bank of Canada foreign exchange rates</i>
--------------	--

Description

Fetch the latest or historical foreign exchange reference rates from the Bank of Canada (BoC).

Usage

```
boc_fx_rates(start_date = NULL, end_date = NULL, limit = NULL, skip = NULL)
```

Arguments

- start_date (NULL | Date(1) | character(1))
Start date of the data. Default NULL.
- end_date (NULL | Date(1) | character(1))
End date of the data. Default NULL.
- limit (NULL | integer(1))
Maximum number of records to return. Default NULL (all records).
- skip (NULL | integer(1))
Number of records to skip. Default NULL (do not skip any records).

Details

The recorded rates indicate the number of Canadian dollars required to buy a single unit of the foreign currency. New rates are released by the Bank of Canada (BoC) daily at 4:30 pm. The Canada Border Services (CBSA) retrieves these updates between 4:30 pm and 5 pm ET.

BoC provides 23 foreign exchange rates. All other rates are maintained by the CBSA.

Exchange rates from the BoC are updated daily in the system while other exchange rates are updated by the CBSA at set intervals. The updated rates are available for retrieval between 7 pm and 11:59 pm ET.

As BoC publishes exchange rates every business day, it is recommended that exchange rate data be retrieved on a daily basis. This retrieval should occur after 7 pm ET to ensure retrieval of the latest updates.

Value

A `data.table::data.table()` with the exchange rates.

Source

<https://www.cbsa-asfc.gc.ca/eservices/api/er-tc-api-eng.html>

Examples

```
# fetch latest exchange rates
boc_fx_rates()

# fetch historical exchange rates
boc_fx_rates(start_date = "2021-10-22", end_date = "2021-10-23", limit = 10, skip = 2)
```

boc_metadata	<i>Fetch Bank of Canada (BoC) metadata (details)</i>
--------------	--

Description

Fetch Bank of Canada (BoC) metadata (details)

Usage

```
boc_metadata(group_name = NULL, series_name = NULL)
```

Arguments

group_name	(NULL character(1)) Name of the group. Only one of group_name or series_name can be used.
series_name	(NULL character()) Name of the series.

Value

A `data.table::data.table()` with the requested data.

Source

<https://www.bankofcanada.ca/valet/docs>

Examples

```
## Not run:
boc_metadata(group_name = "FX_RATES_DAILY")
boc_metadata(series_name = "FXUSDCAD")

## End(Not run)
```

 boe_data

Fetch Bank of England (BoE) data

Description

Retrieve time series data from the BoE database.

Usage

```
boe_data(key, start_date, end_date = Sys.Date())
```

Arguments

key	(character()) The series keys to query.
start_date	(character(1) Date(1)) Start date of the data.
end_date	(character(1) Date(1)) End date of the data. Default is today's date.

Value

A `data.table::data.table()` with the requested data.

Source

<https://www.bankofengland.co.uk/boeapps/database>

See Also

Other data: `bbk_data()`, `bbk_series()`, `bde_data()`, `bde_latest()`, `bdf_codelist()`, `bdf_data()`, `bdf_dataset()`, `bdp_data()`, `bis_data()`, `boc_data()`, `boj_data()`, `ecb_data()`, `nbp_fx_rates()`, `nbp_gold()`, `nob_data()`, `onb_data()`, `snb_data()`, `srb_cross_rates()`, `srb_data()`

Examples

```
# Bank Rate
boe_data("IUBNDR", "2015-01-01")

# SONIA daily rate
boe_data("IUDSOIA", "2015-01-01")

# 10-year nominal par yield
boe_data("IUDMNPY", "2015-01-01")

# multiple series
boe_data(c("IUMABEDR", "IUALBEDR"), "2015-01-01")
```

boj_data	<i>Fetch Bank of Japan (BoJ) data</i>
----------	---------------------------------------

Description

Retrieve time series data from the Bank of Japan Statistics API.

Usage

```
boj_data(db, code, start_date = NULL, end_date = NULL, lang = "en")
```

Arguments

db	(character(1)) The database code to query (e.g., "FM08" for foreign exchange rates). See the API manual for available databases.
code	(character()) One or more series codes to query (e.g., "FXERD01" for USD/JPY spot rate). Maximum 250 codes per request. All codes must have the same frequency. Use boj_metadata() to find available codes.
start_date	(NULL character(1) integer(1)) Start date of the data. Format depends on frequency: "YYYYMMDD" or YYYY for daily, "YYYYMM" for monthly, "YYYYQQ" for quarterly (where QQ is 01-04), "YYYY" for annual. If NULL, all available data is returned. Default NULL.
end_date	(NULL character(1) integer(1)) End date of the data, in the same format as start_date. If NULL, data up to the latest available date is returned. Default NULL.
lang	(character(1)) Language for series names, either "en" or "jp". Default "en".

Value

A `data.table::data.table()` with the requested data.

Source

https://www.stat-search.boj.or.jp/index_en.html

See Also

Other data: `bbk_data()`, `bbk_series()`, `bde_data()`, `bde_latest()`, `bdf_codelist()`, `bdf_data()`, `bdf_dataset()`, `bdp_data()`, `bis_data()`, `boc_data()`, `boe_data()`, `ecb_data()`, `nbp_fx_rates()`, `nbp_gold()`, `nob_data()`, `onb_data()`, `snb_data()`, `srb_cross_rates()`, `srb_data()`

Examples

```
# fetch USD/JPY exchange rate
boj_data("FM08", "FXERD01", start_date = "202401")

# fetch multiple exchange rates
boj_data("FM08", c("FXERD01", "FXERD02"), start_date = "202401")
```

boj_metadata	<i>Fetch Bank of Japan (BoJ) metadata</i>
--------------	---

Description

Retrieve series metadata from the Bank of Japan Statistics API.

Usage

```
boj_metadata(db, lang = "en")
```

Arguments

db	(character(1)) The database code to query (e.g., "FM08" for foreign exchange rates).
lang	(character(1)) Language for names, either "en" or "jp". Default "en".

Value

A `data.table::data.table()` with the requested metadata.

Source

https://www.stat-search.boj.or.jp/index_en.html

See Also

Other metadata: `bbk_dimension()`, `bbk_metadata()`, `bdp_dataset()`, `bdp_dimension()`, `bdp_domain()`, `bdp_series()`, `bis_dimension()`, `bis_metadata()`, `ecb_dimension()`, `ecb_metadata()`, `nob_dimension()`, `nob_metadata()`, `onb_dimension()`, `onb_frequency()`, `onb_hierarchy()`, `onb_metadata()`, `onb_toc()`, `snb_dimension()`, `srb_calendar()`, `srb_series()`

Examples

```
boj_metadata("FM08")
```

cache

Get or manage the bbk API cache

Description

`bbk_cache_dir()` returns the path where cached API responses are stored. `bbk_cache_clear()` clears all cached responses.

Usage

```
bbk_cache_dir()
```

```
bbk_cache_clear()
```

Details

The cache is only used when enabled with `options(bbk.cache = TRUE)`. Cached responses are stored for 1 day by default, but this can be customized with `options(bbk.cache_max_age = seconds)`.

Examples

```
## Not run:  
# enable caching  
options(bbk.cache = TRUE)  
  
# view cache location  
bbk_cache_dir()  
  
# clear the cache  
bbk_cache_clear()  
  
## End(Not run)
```

ecb_data	<i>Fetch European Central Bank (ECB) data</i>
----------	---

Description

Retrieve time series data from the ECB SDMX Web Service.

Usage

```
ecb_data(
  flow,
  key = NULL,
  start_period = NULL,
  end_period = NULL,
  first_n = NULL,
  last_n = NULL,
  updated_after = NULL
)
```

Arguments

flow	(character(1)) Flow to query.
key	(NULL character()) The series keys to query.
start_period	(NULL character(1) integer(1)) Start date of the data. Supported formats: <ul style="list-style-type: none"> • YYYY for annual data (e.g., 2019) • YYYY-S[1-2] for semi-annual data (e.g., "2019-S1") • YYYY-Q[1-4] for quarterly data (e.g., "2019-Q1") • YYYY-MM for monthly data (e.g., "2019-01") • YYYY-W[01-53] for weekly data (e.g., "2019-W01") • YYYY-MM-DD for daily and business data (e.g., "2019-01-01") If NULL, no start date restriction is applied (data retrieved from the earliest available date). Default NULL.
end_period	(NULL character(1) integer(1)) End date of the data, in the same format as start_period. If NULL, no end date restriction is applied (data retrieved up to the most recent available date). Default NULL.
first_n	(NULL numeric(1)) Number of observations to retrieve from the start of the series. If NULL, no restriction is applied. Default NULL.
last_n	(NULL numeric(1)) Number of observations to retrieve from the end of the series. If NULL, no restriction is applied. Default NULL.

`updated_after` (NULL | character(1) | Date(1) | POSIXct(1))
 Retrieve only observations updated after the given timestamp (e.g., "2024-06-01T00:00:00").
 Useful for incremental retrieval. If NULL, no restriction is applied. Default NULL.

Value

A `data.table::data.table()` with the requested data.

Source

<https://data.ecb.europa.eu/help/api/data>

See Also

Other data: `bbk_data()`, `bbk_series()`, `bde_data()`, `bde_latest()`, `bdf_codelist()`, `bdf_data()`,
`bdf_dataset()`, `bdp_data()`, `bis_data()`, `boc_data()`, `boe_data()`, `boj_data()`, `nbp_fx_rates()`,
`nbp_gold()`, `nob_data()`, `onb_data()`, `snb_data()`, `srb_cross_rates()`, `srb_data()`

Examples

```
# fetch US dollar/Euro exchange rate
ecb_data("EXR", "D.USD.EUR.SP00.A")

# fetch data for multiple keys
ecb_data("EXR", c("D.USD", "JPY.EUR.SP00.A"))
```

ecb_dimension	<i>Fetch European Central Bank (ECB) dimensions</i>
---------------	---

Description

Retrieve the dimension structure for a given dataflow from the ECB SDMX Web Service.

Usage

```
ecb_dimension(id)
```

Arguments

`id` (character(1))
 The id of the data structure definition to query (e.g., "ECB_EXR1").

Value

A `data.table::data.table()` with columns:

<code>id</code>	The dimension id (e.g., "FREQ", "CURRENCY")
<code>position</code>	The position of the dimension in the series key
<code>codelist</code>	The id of the associated codelist (e.g., "CL_FREQ")

Source

<https://data.ecb.europa.eu/help/api/metadata>

See Also

Other metadata: `bbk_dimension()`, `bbk_metadata()`, `bdp_dataset()`, `bdp_dimension()`, `bdp_domain()`, `bdp_series()`, `bis_dimension()`, `bis_metadata()`, `boj_metadata()`, `ecb_metadata()`, `nob_dimension()`, `nob_metadata()`, `onb_dimension()`, `onb_frequency()`, `onb_hierarchy()`, `onb_metadata()`, `onb_toc()`, `snb_dimension()`, `srb_calendar()`, `srb_series()`

Examples

```
ecb_dimension("ECB_EXR1")
```

<code>ecb_fx_rates</code>	<i>Fetch Euro foreign exchange reference rates</i>
---------------------------	--

Description

Fetch the latest or historical Euro foreign exchange reference rates from the European Central Bank (ECB).

Usage

```
ecb_fx_rates(x = "latest")
```

```
ecb_euro_rates(x = "latest")
```

Arguments

<code>x</code>	(character(1)) One of "latest" or "history". Default "latest".
----------------	---

Details

Note you can achieve the same by calling the `ecb_data()` function with the right parameters for each currency.

The reference rates are usually updated at around 16:00 CET every working day, except on **TARGET closing days**.

They are based on the daily concertation procedure between central banks across Europe, which normally takes place around 14:10 CET. The reference rates are published for information purposes only. Using the rates for transaction purposes is strongly discouraged.

Value

A `data.table::data.table()` with the exchange rates.

Source

https://www.ecb.europa.eu/stats/policy_and_exchange_rates/euro_reference_exchange_rates/html/index.en.html

Examples

```
ecb_fx_rates()
```

ecb_metadata

Fetch European Central Bank (ECB) metadata

Description

Retrieve metadata from the ECB time series database via the SDMX Web Service.

Usage

```
ecb_metadata(type, agency = NULL, id = NULL)
```

Arguments

<code>type</code>	(character(1)) The type of metadata to query. One of: "datastructure", "dataflow", "codelist", or "concept".
<code>agency</code>	(NULL character(1)) The id of the agency to query. Default NULL.
<code>id</code>	(NULL character(1)) The id of the resource to query. Default NULL.

Value

A `data.table::data.table()` with the requested metadata. The columns are:

agency	The agency of the metadata
id	The id of the metadata
name	The name of the metadata

Source

<https://data.ecb.europa.eu/help/api/metadata>

See Also

Other metadata: `bbk_dimension()`, `bbk_metadata()`, `bdp_dataset()`, `bdp_dimension()`, `bdp_domain()`, `bdp_series()`, `bis_dimension()`, `bis_metadata()`, `boj_metadata()`, `ecb_dimension()`, `nob_dimension()`, `nob_metadata()`, `onb_dimension()`, `onb_frequency()`, `onb_hierarchy()`, `onb_metadata()`, `onb_toc()`, `snb_dimension()`, `srb_calendar()`, `srb_series()`

Examples

```
ecb_metadata("datastructure")
ecb_metadata("datastructure", "ECB")
ecb_metadata("datastructure", "ECB", "ECB_EXR1")
ecb_metadata("datastructure", id = "ECB_EXR1")
```

nbp_fx_rates

Fetch National Bank of Poland (NBP) exchange rates

Description

Retrieve foreign currency exchange rates from the NBP Web API.

Usage

```
nbp_fx_rates(
  table,
  code = NULL,
  start_date = NULL,
  end_date = NULL,
  last_n = NULL
)
```

Arguments

table	(character(1)) Table type: "a" (mid rates, major currencies), "b" (mid rates, less common currencies), or "c" (bid/ask rates).
code	(NULL character(1)) ISO 4217 currency code (e.g. "usd", "eur"). If NULL, returns all currencies.
start_date	(NULL character(1) Date(1)) Start date of the data.
end_date	(NULL character(1) Date(1)) End date of the data.
last_n	(NULL integer(1)) Return only the last n quotations.

Value

A `data.table::data.table()` with exchange rates.

Source

<https://api.nbp.pl/en.html>

See Also

Other data: `bbk_data()`, `bbk_series()`, `bde_data()`, `bde_latest()`, `bdf_codelist()`, `bdf_data()`, `bdf_dataset()`, `bdp_data()`, `bis_data()`, `boc_data()`, `boe_data()`, `boj_data()`, `ecb_data()`, `nbp_gold()`, `nob_data()`, `onb_data()`, `snb_data()`, `srb_cross_rates()`, `srb_data()`

Examples

```
nbp_fx_rates("a", "eur")
```

nbp_gold

Fetch National Bank of Poland (NBP) gold prices

Description

Retrieve the price of gold from the NBP Web API.

Usage

```
nbp_gold(start_date = NULL, end_date = NULL, last_n = NULL)
```

Arguments

start_date	(NULL character(1) Date(1)) Start date of the data.
end_date	(NULL character(1) Date(1)) End date of the data.
last_n	(NULL integer(1)) Return only the last n quotations.

Value

A `data.table::data.table()` with gold prices.

Source

<https://api.nbp.pl/en.html>

See Also

Other data: `bbk_data()`, `bbk_series()`, `bde_data()`, `bde_latest()`, `bdf_codelist()`, `bdf_data()`, `bdf_dataset()`, `bdp_data()`, `bis_data()`, `boc_data()`, `boe_data()`, `boj_data()`, `ecb_data()`, `nbp_fx_rates()`, `nob_data()`, `onb_data()`, `snb_data()`, `srb_cross_rates()`, `srb_data()`

Examples

```
nbp_gold(last_n = 10L)
```

nob_data	<i>Fetch Norges Bank (NoB) data</i>
----------	-------------------------------------

Description

Retrieve time series data from the Norges Bank SDMX Web Service.

Usage

```
nob_data(  
  flow,  
  key = NULL,  
  start_period = NULL,  
  end_period = NULL,  
  first_n = NULL,  
  last_n = NULL  
)
```

Arguments

flow	(character(1)) The dataflow to query. See <code>nob_metadata()</code> for available dataflows.
key	(NULL character(1)) The series key to query using dot-separated dimension values (e.g., "B.USD.NOK.SP"). Use + for multiple values in one dimension (e.g., "B.USD+EUR.NOK.SP"). If NULL, all data for the flow is returned. Default NULL.
start_period	(NULL character(1) integer(1)) Start date of the data (e.g., "2024-01-01" or 2024). If NULL, no start date restriction is applied. Default NULL.
end_period	(NULL character(1) integer(1)) End date of the data, in the same format as start_period. If NULL, no end date restriction is applied. Default NULL.
first_n	(NULL numeric(1)) Number of observations to retrieve from the start of the series. If NULL, no restriction is applied. Default NULL.
last_n	(NULL numeric(1)) Number of observations to retrieve from the end of the series. If NULL, no restriction is applied. Default NULL.

Value

A `data.table::data.table()` with the requested data.

Source

<https://www.norges-bank.no/en/topics/Statistics/open-data/>

See Also

Other data: `bbk_data()`, `bbk_series()`, `bde_data()`, `bde_latest()`, `bdf_codelist()`, `bdf_data()`, `bdf_dataset()`, `bdp_data()`, `bis_data()`, `boc_data()`, `boe_data()`, `boj_data()`, `ecb_data()`, `nbp_fx_rates()`, `nbp_gold()`, `onb_data()`, `snb_data()`, `srp_cross_rates()`, `srp_data()`

Examples

```
# fetch USD/NOK exchange rate
nob_data("EXR", "B.USD.NOK.SP", last_n = 5L)

# fetch multiple exchange rates
nob_data("EXR", "B.USD+EUR+GBP.NOK.SP", start_period = "2024-01-01")

# fetch policy rate
nob_data("IR", last_n = 5L)
```

nob_dimension	<i>Fetch Norges Bank (NoB) dimensions</i>
---------------	---

Description

Retrieve the dimension structure for a given dataflow from the Norges Bank SDMX Web Service.

Usage

```
nob_dimension(id)
```

Arguments

id	(character(1)) The id of the data structure definition to query (e.g., "NB_EXR").
----	--

Value

A `data.table::data.table()` with columns:

id	The dimension id (e.g., "FREQ", "BASE_CUR")
position	The position of the dimension in the series key
codelist	The id of the associated codelist (e.g., "CL_FREQ")

Source

<https://www.norges-bank.no/en/topics/Statistics/open-data/>

See Also

Other metadata: `bbk_dimension()`, `bbk_metadata()`, `bdp_dataset()`, `bdp_dimension()`, `bdp_domain()`, `bdp_series()`, `bis_dimension()`, `bis_metadata()`, `boj_metadata()`, `ecb_dimension()`, `ecb_metadata()`, `nob_metadata()`, `onb_dimension()`, `onb_frequency()`, `onb_hierarchy()`, `onb_metadata()`, `onb_toc()`, `snb_dimension()`, `srb_calendar()`, `srb_series()`

Examples

```
nob_dimension("DSD_EXR")
```

nob_metadata	<i>Fetch Norges Bank (NoB) metadata</i>
--------------	---

Description

Retrieve metadata from the Norges Bank SDMX Web Service.

Usage

```
nob_metadata(type, id = NULL, lang = "en")
```

Arguments

type	(character(1)) The type of metadata to query. One of: "datastructure", "dataflow", "codelist", or "concept".
id	(NULL character(1)) The id to query. Default NULL.
lang	(character(1)) Language for names, either "en" or "no". Default "en".

Value

A `data.table::data.table()` with the requested metadata.

Source

<https://www.norges-bank.no/en/topics/Statistics/open-data/>

See Also

Other metadata: `bbk_dimension()`, `bbk_metadata()`, `bdp_dataset()`, `bdp_dimension()`, `bdp_domain()`, `bdp_series()`, `bis_dimension()`, `bis_metadata()`, `boj_metadata()`, `ecb_dimension()`, `ecb_metadata()`, `nob_dimension()`, `onb_dimension()`, `onb_frequency()`, `onb_hierarchy()`, `onb_metadata()`, `onb_toc()`, `snb_dimension()`, `srb_calendar()`, `srb_series()`

Examples

```
nob_metadata("dataflow")
nob_metadata("datastructure")
nob_metadata("codelist", "CL_CURRENCY")
```

`onb_data`*Fetch Österreichische Nationalbank (OeNB) data*

Description

Retrieve time series data from the OeNB Web Service.

Usage

```
onb_data(  
  hier_id,  
  key,  
  ...,  
  start_period = NULL,  
  end_period = NULL,  
  freq = NULL,  
  lang = "en"  
)
```

Arguments

<code>hier_id</code>	(integer(1)) Hierarchy id to query.
<code>key</code>	(character()) The series keys to query.
<code>...</code>	(any) Additional parameters to pass to the API.
<code>start_period</code>	(NULL character(1) integer(1)) Start date of the data.
<code>end_period</code>	(NULL character(1) integer(1)) End date of the data.
<code>freq</code>	(NULL character(1)) Frequency of the data.
<code>lang</code>	(character(1)) Language to query. Default "en".

Value

A `data.table::data.table()` with the requested data.

Source

<https://www.oenb.at/en/Statistics/User-Defined-Tables/webservice.html>

See Also

Other data: [bbk_data\(\)](#), [bbk_series\(\)](#), [bde_data\(\)](#), [bde_latest\(\)](#), [bdf_codelist\(\)](#), [bdf_data\(\)](#), [bdf_dataset\(\)](#), [bdp_data\(\)](#), [bis_data\(\)](#), [boc_data\(\)](#), [boe_data\(\)](#), [boj_data\(\)](#), [ecb_data\(\)](#), [nbp_fx_rates\(\)](#), [nbp_gold\(\)](#), [nob_data\(\)](#), [snb_data\(\)](#), [srb_cross_rates\(\)](#), [srb_data\(\)](#)

Examples

```
onb_data(hier_id = 11, key = "VDBFKBSC217000")

# Loans to euro area residents, since 2000:
onb_data(hier_id = 11, key = "VDBFKBSC217000", start_period = "2000-01-01")

# Austrian imports and exports of goods from/to Germany, 2002-2012, annual frequency:
onb_data(hier_id = 901, key = "VDBQZA1000", start_period = 2002, end_period = 2012, freq = "A")

# Number of Austrian banks' subsidiaries abroad and in the EU, from 2005, semiannual:
onb_data(
  hier_id = 321,
  key = c("VDBKISDANZTAU", "VDBKISDANZTEU"),
  start_period = 200501,
  freq = "H"
)
```

onb_dimension

Fetch Österreichische Nationalbank (OeNB) dimension

Description

Fetch Österreichische Nationalbank (OeNB) dimension

Usage

```
onb_dimension(hier_id, key, lang = "en")
```

Arguments

hier_id	(integer(1)) Hierarchy id to query.
key	(character()) The series keys to query.
lang	(character(1)) Language to query. Default "en".

Value

A `data.table::data.table()` with the requested data.

See Also

Other metadata: [bbk_dimension\(\)](#), [bbk_metadata\(\)](#), [bdp_dataset\(\)](#), [bdp_dimension\(\)](#), [bdp_domain\(\)](#), [bdp_series\(\)](#), [bis_dimension\(\)](#), [bis_metadata\(\)](#), [boj_metadata\(\)](#), [ecb_dimension\(\)](#), [ecb_metadata\(\)](#), [nob_dimension\(\)](#), [nob_metadata\(\)](#), [onb_frequency\(\)](#), [onb_hierarchy\(\)](#), [onb_metadata\(\)](#), [onb_toc\(\)](#), [snb_dimension\(\)](#), [srb_calendar\(\)](#), [srb_series\(\)](#)

Examples

```
onb_dimension(hier_id = 11, key = "VDBFKBSC217000")
```

onb_frequency	<i>Fetch Österreichische Nationalbank (OeNB) data frequency</i>
---------------	---

Description

Fetch Österreichische Nationalbank (OeNB) data frequency

Usage

```
onb_frequency(hier_id, key, ..., lang = "en")
```

Arguments

hier_id	(integer(1)) Hierarchy id to query.
key	(character()) The series keys to query.
...	(any) Additional parameters to pass to the API.
lang	(character(1)) Language to query. Default "en".

Value

A `data.table::data.table()` with the requested data.

See Also

Other metadata: [bbk_dimension\(\)](#), [bbk_metadata\(\)](#), [bdp_dataset\(\)](#), [bdp_dimension\(\)](#), [bdp_domain\(\)](#), [bdp_series\(\)](#), [bis_dimension\(\)](#), [bis_metadata\(\)](#), [boj_metadata\(\)](#), [ecb_dimension\(\)](#), [ecb_metadata\(\)](#), [nob_dimension\(\)](#), [nob_metadata\(\)](#), [onb_dimension\(\)](#), [onb_hierarchy\(\)](#), [onb_metadata\(\)](#), [onb_toc\(\)](#), [snb_dimension\(\)](#), [srb_calendar\(\)](#), [srb_series\(\)](#)

Examples

```
onb_frequency(hier_id = 74, key = "VDBOSBHAGBSTIN")
onb_frequency(hier_id = 11, key = "VDBFKBSC217000")
```

onb_hierarchy	<i>Fetch Österreichische Nationalbank (OeNB) hierarchy</i>
---------------	--

Description

Fetch Österreichische Nationalbank (OeNB) hierarchy

Usage

```
onb_hierarchy(hier_id, lang = "en")
```

Arguments

hier_id	(integer(1)) Hierarchy id to query.
lang	(character(1)) Language to query. Default "en".

Value

A `data.table::data.table()` with the requested data.

See Also

Other metadata: `bbk_dimension()`, `bbk_metadata()`, `bdp_dataset()`, `bdp_dimension()`, `bdp_domain()`, `bdp_series()`, `bis_dimension()`, `bis_metadata()`, `boj_metadata()`, `ecb_dimension()`, `ecb_metadata()`, `nob_dimension()`, `nob_metadata()`, `onb_dimension()`, `onb_frequency()`, `onb_metadata()`, `onb_toc()`, `snb_dimension()`, `srb_calendar()`, `srb_series()`

Examples

```
onb_hierarchy(hier_id = 11)
```

onb_metadata	<i>Fetch Österreichische Nationalbank (OeNB) metadata</i>
--------------	---

Description

Fetch Österreichische Nationalbank (OeNB) metadata

Usage

```
onb_metadata(hier_id, key, ..., lang = "en")
```

Arguments

hier_id	(integer(1)) Hierarchy id to query.
key	(character()) The series keys to query.
...	(any) Additional parameters to pass to the API.
lang	(character(1)) Language to query. Default "en".

Value

A `data.table::data.table()` with the requested data.

See Also

Other metadata: `bbk_dimension()`, `bbk_metadata()`, `bdp_dataset()`, `bdp_dimension()`, `bdp_domain()`, `bdp_series()`, `bis_dimension()`, `bis_metadata()`, `boj_metadata()`, `ecb_dimension()`, `ecb_metadata()`, `nob_dimension()`, `nob_metadata()`, `onb_dimension()`, `onb_frequency()`, `onb_hierarchy()`, `onb_toc()`, `snb_dimension()`, `srb_calendar()`, `srb_series()`

Examples

```
onb_metadata(hier_id = 11, key = "VDBFKBSC217000")
```

onb_toc	<i>Fetch Österreichische Nationalbank (OeNB) table of contents</i>
---------	--

Description

Fetch Österreichische Nationalbank (OeNB) table of contents

Usage

```
onb_toc(lang = "en")
```

Arguments

lang	(character(1)) Language to query. Default "en".
------	--

Value

A `data.table::data.table()` with the requested data.

See Also

Other metadata: `bbk_dimension()`, `bbk_metadata()`, `bdp_dataset()`, `bdp_dimension()`, `bdp_domain()`, `bdp_series()`, `bis_dimension()`, `bis_metadata()`, `boj_metadata()`, `ecb_dimension()`, `ecb_metadata()`, `nob_dimension()`, `nob_metadata()`, `onb_dimension()`, `onb_frequency()`, `onb_hierarchy()`, `onb_metadata()`, `snb_dimension()`, `srb_calendar()`, `srb_series()`

Examples

```
onb_toc()
```

snb_data	<i>Fetch Swiss National Bank (SNB) data</i>
----------	---

Description

Retrieve time series data from the SNB data portal.

Usage

```
snb_data(key, start_date = NULL, end_date = NULL, lang = "en")
```

Arguments

key	(character(1)) The series key to query.
start_date	(NULL character(1) Date(1)) Start date of the data.
end_date	(NULL character(1) Date(1)) End date of the data.
lang	(character(1)) Language to query, either "en" or "de". Default "en".

Value

A `data.table::data.table()` with the requested data.

Source

<https://data.snb.ch/en>

See Also

Other data: `bbk_data()`, `bbk_series()`, `bde_data()`, `bde_latest()`, `bdf_codelist()`, `bdf_data()`, `bdf_dataset()`, `bdp_data()`, `bis_data()`, `boc_data()`, `boe_data()`, `boj_data()`, `ecb_data()`, `nbp_fx_rates()`, `nbp_gold()`, `nob_data()`, `onb_data()`, `srb_cross_rates()`, `srb_data()`

Examples

```
snb_data("rendopar")

# or filter for date range
snb_data("rendopar", "2020-01-01", "2020-12-31")
```

snb_dimension

Fetch Swiss National Bank (SNB) dimensions

Description

Retrieve the dimension structure for a given cube from the SNB data portal.

Usage

```
snb_dimension(key, lang = "en")
```

Arguments

key	(character(1)) The series key to query.
lang	(character(1)) Language to query, either "en" or "de". Default "en".

Value

A `data.table::data.table()` with the dimension structure.

Source

<https://data.snb.ch/en>

See Also

Other metadata: `bbk_dimension()`, `bbk_metadata()`, `bdp_dataset()`, `bdp_dimension()`, `bdp_domain()`, `bdp_series()`, `bis_dimension()`, `bis_metadata()`, `boj_metadata()`, `ecb_dimension()`, `ecb_metadata()`, `nob_dimension()`, `nob_metadata()`, `onb_dimension()`, `onb_frequency()`, `onb_hierarchy()`, `onb_metadata()`, `onb_toc()`, `srb_calendar()`, `srb_series()`

Examples

```
snb_dimension("rendopar")
```

srb_calendar

Fetch Sveriges Riksbank (SRB) calendar days

Description

Retrieve Swedish banking calendar information from the Sveriges Riksbank SWEA API.

Usage

```
srb_calendar(start_date, end_date = NULL)
```

Arguments

start_date	(Date(1) character(1)) Start date of the range (e.g., "2024-01-01").
end_date	(NULL Date(1) character(1)) End date of the range. If NULL, data up to the latest available date is returned. Default NULL.

Value

A `data.table::data.table()` with the calendar day information.

Source

<https://developer.api.riksbank.se/>

See Also

Other metadata: `bbk_dimension()`, `bbk_metadata()`, `bdp_dataset()`, `bdp_dimension()`, `bdp_domain()`, `bdp_series()`, `bis_dimension()`, `bis_metadata()`, `boj_metadata()`, `ecb_dimension()`, `ecb_metadata()`, `nob_dimension()`, `nob_metadata()`, `onb_dimension()`, `onb_frequency()`, `onb_hierarchy()`, `onb_metadata()`, `onb_toc()`, `snb_dimension()`, `srb_series()`

Examples

```
srb_calendar("2024-01-01", "2024-01-31")
```

srb_cross_rates	<i>Fetch Sveriges Riksbank (SRB) cross rates</i>
-----------------	--

Description

Compute cross exchange rates between two currency series from the Sveriges Riksbank SWEA API.

Usage

```
srb_cross_rates(series1, series2, start_date, end_date = NULL)
```

Arguments

series1	(character(1)) The first series ID (e.g., "SEKUSDPMI").
series2	(character(1)) The second series ID (e.g., "SEKEURPMI").
start_date	(NULL Date(1) character(1)) Start date of the data (e.g., "2024-01-01"). If NULL, all available data is returned. Default NULL.
end_date	(NULL Date(1) character(1)) End date of the data, in the same format as start_date. If NULL, data up to the latest available date is returned. Default NULL.

Value

A `data.table::data.table()` with the cross rate data.

Source

<https://developer.api.riksbank.se/>

See Also

Other data: `bbk_data()`, `bbk_series()`, `bde_data()`, `bde_latest()`, `bdf_codelist()`, `bdf_data()`, `bdf_dataset()`, `bdp_data()`, `bis_data()`, `boc_data()`, `boe_data()`, `boj_data()`, `ecb_data()`, `nbp_fx_rates()`, `nbp_gold()`, `nob_data()`, `onb_data()`, `snb_data()`, `srb_data()`

Examples

```
# USD/EUR cross rate
srb_cross_rates("SEKUSDPMI", "SEKEURPMI", start_date = "2024-01-01", end_date = "2024-01-31")
```

srb_data

Fetch Sveriges Riksbank (SRB) data

Description

Retrieve time series data from the Sveriges Riksbank SWEA API.

Usage

```
srb_data(series, start_date = NULL, end_date = NULL)
```

Arguments

series	(character(1)) The series ID to query. See <code>srb_series()</code> for available series.
start_date	(NULL Date(1) character(1)) Start date of the data (e.g., "2024-01-01"). If NULL, all available data is returned. Default NULL.
end_date	(NULL Date(1) character(1)) End date of the data, in the same format as <code>start_date</code> . If NULL, data up to the latest available date is returned. Default NULL.

Value

A `data.table::data.table()` with the requested data.

Source

<https://developer.api.riksbank.se/>

See Also

Other data: [bbk_data\(\)](#), [bbk_series\(\)](#), [bde_data\(\)](#), [bde_latest\(\)](#), [bdf_codelist\(\)](#), [bdf_data\(\)](#), [bdf_dataset\(\)](#), [bdp_data\(\)](#), [bis_data\(\)](#), [boc_data\(\)](#), [boe_data\(\)](#), [boj_data\(\)](#), [ecb_data\(\)](#), [nbp_fx_rates\(\)](#), [nbp_gold\(\)](#), [nob_data\(\)](#), [onb_data\(\)](#), [snb_data\(\)](#), [srb_cross_rates\(\)](#)

Examples

```
# fetch USD/SEK exchange rate
srb_data("SEKUSDPMI", start_date = "2024-01-01")

# fetch EUR/SEK exchange rate
srb_data("SEKEURPMI", start_date = "2024-01-01")
```

srb_series

Fetch Sveriges Riksbank (SRB) series metadata

Description

Retrieve available series or group metadata from the Sveriges Riksbank SWEA API.

Usage

```
srb_series(type = "series")
```

Arguments

type (character(1))
The type of metadata to query. One of "series" or "groups". Default "series".

Value

A `data.table::data.table()` with the requested metadata.

Source

<https://developer.api.riksbank.se/>

See Also

Other metadata: [bbk_dimension\(\)](#), [bbk_metadata\(\)](#), [bdp_dataset\(\)](#), [bdp_dimension\(\)](#), [bdp_domain\(\)](#), [bdp_series\(\)](#), [bis_dimension\(\)](#), [bis_metadata\(\)](#), [boj_metadata\(\)](#), [ecb_dimension\(\)](#), [ecb_metadata\(\)](#), [nob_dimension\(\)](#), [nob_metadata\(\)](#), [onb_dimension\(\)](#), [onb_frequency\(\)](#), [onb_hierarchy\(\)](#), [onb_metadata\(\)](#), [onb_toc\(\)](#), [snb_dimension\(\)](#), [srb_calendar\(\)](#)

Examples

```
srb_series()
```

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