Package 'ukhousing'

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Title Access UK Housing Data from Land Registry, Planning, and 'ONS'

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Description Fetch UK housing data from official sources. Access the UK House Price Index and Price Paid Data from 'HM Land Registry' <https://landregistry.data.gov.uk/>, planning application, brownfield land, and local plan data from 'planning.data.gov.uk' <https://www.planning.data.gov.uk/>, and the Price Index of Private Rents from the 'Office for National Statistics'. Data covers all 441 UK local authorities from 1995 to the present. Functions accept flexible filters (postcode, local authority, property type, date range) and return tidy data frames. Downloaded data is cached locally for subsequent calls.

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`ukh_cache_info` *Inspect the local ukhousing cache*

Description

Returns information about the local cache: where it lives, how many files it contains, and how much disk space they take. Useful when debugging stale results or deciding whether to call `ukh_clear_cache()`.

Usage

```
ukh_cache_info()
```

Value

A list with elements `dir`, `n_files`, `size_bytes`, `size_human`, and `files` (a data frame).

See Also

Other configuration: `ukh_clear_cache()`

Examples

```
op <- options(ukhousing.cache_dir = tempdir())
try({
  ukh_cache_info()
})
options(op)
```

ukh_clear_cache *Clear the ukhousing cache*

Description

Deletes all locally cached UK housing data files. The next call to any data function will re-download fresh data.

Usage

```
ukh_clear_cache()
```

Value

Invisibly returns `NULL`.

See Also

Other configuration: `ukh_cache_info()`

Examples

```
op <- options(ukhousing.cache_dir = tempdir())
try({
  ukh_clear_cache()
})
options(op)
```

ukh_hpi *UK House Price Index*

Description

Fetches monthly UK House Price Index data for a region from the HM Land Registry linked data service. Coverage: 441+ areas (countries, regions, counties, local authorities) from January 1995 (England and Wales), January 2004 (Scotland), January 2005 (Northern Ireland).

Usage

```
ukh_hpi(region, from = NULL, to = NULL, refresh = FALSE)
```

Arguments

region	Character. Region slug, GSS code, or common name (e.g. "westminster", "Westminster", "E09000033"). See ukh_regions() for common options.
from, to	Optional character or Date. Start and end dates in ISO format (YYYY-MM-DD). Default returns the full available history.
refresh	Logical. Re-download even if cached? Default FALSE.

Details

The returned data frame includes the headline index, average price, monthly and annual percentage change, sales volume, and breakdowns by property type (detached, semi-detached, terraced, flat) and by buyer type (cash, mortgage, first-time buyer, former owner occupier, new build, existing property).

Sales volumes lag the headline index by approximately five months because the Land Registry needs the full transaction set to settle.

Value

A data frame with one row per month. Columns include date, region, hpi, avg_price, pct_change_monthly, pct_change_annual, sales_volume, plus property-type and buyer-type average prices.

See Also

Other house price index: ukh_hpi_compare(), ukh_transactions()

Examples

```
op <- options(ukhousing.cache_dir = tempdir())
try({
  # All UK average house prices
  uk <- ukh_hpi("united-kingdom")
  head(uk)

  # London, last 10 years
  london <- ukh_hpi("london", from = "2016-01-01")
  tail(london)
})
options(op)
```

---

ukh_hpi_compare *Compare UK HPI across multiple regions*

Description

Fetches the UK House Price Index for several regions and returns a wide data frame with one measure (e.g. average price or annual % change) as a column per region. Useful for regional comparison charts.

Usage

```
ukh_hpi_compare(
  regions,
  measure = "avg_price",
  from = NULL,
  to = NULL,
  refresh = FALSE
)
```

Arguments

regions	Character vector of region slugs, GSS codes, or names.
measure	Character. Which measure to return. One of "avg_price", "hpi", "pct_change_annual", "pct_change_monthly", or "sales_volume". Default "avg_price".
from, to	Optional character or Date. Date range.
refresh	Logical. Re-download even if cached? Default FALSE.

Value

A wide data frame with a date column and one column per region.

See Also

Other house price index: ukh_hpi(), ukh_transactions()

Examples

```
op <- options(ukhousing.cache_dir = tempdir())
try({
  prices <- ukh_hpi_compare(
    c("london", "manchester", "newcastle-upon-tyne"),
    measure = "avg_price",
    from = "2015-01-01"
  )
  head(prices)
})
options(op)
```

---

ukh_pipr *ONS Price Index of Private Rents*

Description

Downloads the ONS Price Index of Private Rents (PIPR), UK: monthly price statistics. PIPR replaced the Index of Private Housing Rental Prices in 2024 and is published monthly from January 2015 for the UK, its countries, the English regions and local authorities (around 350 areas in all), including average rents in pounds.

Usage

```
ukh_pipr(property = "all", refresh = FALSE)
```

Arguments

property	Which series to return: "all" (default, all private rented property), a bedroom count ("one bed", "two bed", "three bed", "four or more bed") or a property type ("detached", "semidetached", "terraced", "flat maisonette").
refresh	Logical. Re-download even if cached? Default FALSE.

Details

The ONS stopped updating the rental index on its Beta API at January 2024, so this function reads the monthly workbook from the ONS website instead. The cached copy is refreshed once it is more than getOption("ukhousing.cache_max_age", 7) days old.

Value

A data frame with columns date (first of the month), gss_code, region (area name), parent_region (the region or country an area belongs to; NA for the UK and its countries), index (January 2023 = 100), monthly_change_pct, annual_change_pct and rental_price_gbp (average monthly rent, rounded to the nearest pound). Values the ONS marks as unavailable or not applicable are NA. Requires the **readxl** package.

Source

Office for National Statistics, Price Index of Private Rents, UK: monthly price statistics. Official statistics in development. https://www.ons.gov.uk/economy/inflationandpriceindices/datasets/priceindexofprivaterentsukmonthlypricestatistics

Examples

```
op <- options(ukhousing.cache_dir = tempdir())
try({
  rents <- ukh_pipr()
  tail(rents[rents$region == "United Kingdom", ])
  flats <- ukh_pipr(property = "flat maisonette")
})
options(op)
```

ukh_planning *Query planning.data.gov.uk*

Description

Fetches records from the Digital Land planning data platform, which hosts over 100 datasets on planning applications, brownfield land, local plans, conservation areas, listed buildings, flood risk zones, and more.

Usage

```
ukh_planning(
  dataset,
  la = NULL,
  limit = 1000L,
  format = c("data.frame", "raw", "sf")
)
```

Arguments

dataset	Character. Dataset slug. Common values: "planning-application", "brownfield-land", "local-plan", "conservation-area", "listed-building", "article-4-direction-area", "tree-preservation-zone", "flood-risk-zone". See ukh_planning_datasets() for the full list.
la	Optional character. Local authority name (matched case-insensitively against the organisation field).
limit	Integer. Maximum records to return. Default 1000.
format	Character. Response format. "data.frame" (default) returns tidy data. "raw" returns the parsed JSON list.

Value

A data frame (or list if format = "raw").

See Also

Other planning: ukh_planning_datasets()

Examples

```
op <- options(ukhousing.cache_dir = tempdir())
try({
  bf <- ukh_planning("brownfield-land", limit = 100)
  head(bf)
})
options(op)
```

ukh_planning_datasets *List available planning datasets*

Description

Returns a data frame of datasets hosted by planning.data.gov.uk, with their slugs, names, and descriptions.

Usage

```
ukh_planning_datasets()
```

Value

A data frame with `slug`, `name`, `typology`, and `record_count`.

See Also

Other planning: `ukh_planning()`

Examples

```
op <- options(ukhousing.cache_dir = tempdir())
try({
  ds <- ukh_planning_datasets()
  head(ds)
})
options(op)
```

ukh_ppd *Price Paid Data*

Description

Fetches individual property transaction records from the HM Land Registry Price Paid Data, filtered by local authority, postcode, property type, and other criteria.

Usage

```
ukh_ppd(
  year = as.integer(format(Sys.Date(), "%Y")),
  la = NULL,
  postcode = NULL,
  property_type = NULL,
  new_build = NULL,
```

```
  tenure = NULL,
  from = NULL,
  to = NULL,
  refresh = FALSE
)
```

Arguments

year	Integer. Year of transactions to fetch. Defaults to the current calendar year.
la	Optional character. Local authority name, matched against the district field ignoring case, spacing and a leading "City of" or "The", so "Westminster" finds "CITY OF WESTMINSTER" and "Vale of Glamorgan" finds "THE VALE OF GLAMORGAN". The City of London keeps its prefix, so "London" does not match it.
postcode	Optional character. Postcode or postcode prefix.
property_type	Optional character. One of "detached", "semi", "terraced", "flat", or "other". Also accepts the single-letter codes "D", "S", "T", "F", "O".
new_build	Optional logical. If TRUE, only newly built properties. If FALSE, only established properties.
tenure	Optional character. "freehold" or "leasehold".
from, to	Optional character or Date. Date range within the year (YYYY-MM-DD).
refresh	Logical. Re-download the yearly file even if cached? Default FALSE.

Details

The full yearly CSV is ~150 MB (about 900,000 transactions). This function downloads the yearly file, caches it, and then filters in memory. Memory footprint during the call is roughly 1 GB because R data frames are considerably larger than the source CSV; on memory-constrained machines, prefer ukh_ppd_address() for postcode lookups or ukh_ppd_summary() for aggregated stats. Subsequent queries against the same year use the cache. For multi-year queries, call the function once per year or use ukh_ppd_years().

Value

A data frame of individual transactions with columns transaction_id, price, date, postcode, property_type, new_build, tenure, paon, saon, street, locality, town, district, county, category, record_status.

See Also

Other price paid data: ukh_ppd_address(), ukh_ppd_bulk(), ukh_ppd_summary(), ukh_ppd_transaction(), ukh_ppd_years()

Examples

```
op <- options(ukhousing.cache_dir = tempdir())
try({
  # Westminster flats sold in 2024
```

```
  wm <- ukh_ppd(2024, la = "Westminster", property_type = "flat")
  head(wm)
})
options(op)
```

---

ukh_ppd_address *Look up Price Paid transactions by postcode address*

Description

Uses the Land Registry linked data address lookup to find all transactions at a given postcode. Faster than downloading the yearly bulk file when you only want a single postcode.

Usage

```
ukh_ppd_address(postcode)
```

Arguments

postcode	Character. Full UK postcode (e.g. "SW1A 1AA").

Value

A data frame of transactions at addresses matching the postcode.

See Also

Other price paid data: ukh_ppd(), ukh_ppd_bulk(), ukh_ppd_summary(), ukh_ppd_transaction(), ukh_ppd_years()

Examples

```
op <- options(ukhousing.cache_dir = tempdir())
try({
  tx <- ukh_ppd_address("SW1A 1AA")
  head(tx)
})
options(op)
```

ukh_ppd_bulk *Download a Price Paid Data bulk file*

Description

Downloads and caches a yearly (or the complete) Price Paid Data CSV from HM Land Registry. Returns the path to the cached file. Yearly files are typically 100-200 MB; the complete file (1995-present) is approximately 5.3 GB.

Usage

```
ukh_ppd_bulk(
  year = as.integer(format(Sys.Date(), "%Y")),
  full = FALSE,
  refresh = FALSE
)
```

Arguments

year	Integer. Year to download. Ignored when full = TRUE. Defaults to the current year.
full	Logical. If TRUE, download the complete file (pp-complete.csv, ~5.3 GB) instead of a single year. Default FALSE.
refresh	Logical. Re-download even if cached? Default FALSE.

Value

Character. The path to the cached CSV file.

See Also

Other price paid data: ukh_ppd(), ukh_ppd_address(), ukh_ppd_summary(), ukh_ppd_transaction(), ukh_ppd_years()

Examples

```
op <- options(ukhousing.cache_dir = tempdir())
try({
  path <- ukh_ppd_bulk(2025)
})
options(op)
```

ukh_ppd_summary *Price Paid Data summary*

Description

Returns summary statistics from Price Paid Data for a given year, aggregated by month, property type, or local authority. Useful when the user wants counts and median prices without loading 150 MB of individual transactions.

Usage

```
ukh_ppd_summary(
  year = as.integer(format(Sys.Date(), "%Y")),
  by = c("month", "property_type", "la"),
  la = NULL,
  refresh = FALSE
)
```

Arguments

year	Integer. Year to summarise.
by	Character. Aggregation dimension: "month", "property_type", or "la". Default "month".
la	Optional character. Restrict to one local authority.
refresh	Logical. Re-download even if cached? Default FALSE.

Value

A data frame with one row per group and columns n, median_price, mean_price, total_value.

See Also

Other price paid data: ukh_ppd(), ukh_ppd_address(), ukh_ppd_bulk(), ukh_ppd_transaction(), ukh_ppd_years()

Examples

```
op <- options(ukhousing.cache_dir = tempdir())
try({
  # Monthly transaction counts and medians, nationally
  s <- ukh_ppd_summary(2025, by = "month")
  head(s)
})
options(op)
```

ukh_ppd_transaction *Look up a single Price Paid transaction by ID*

Description

Fetches the full metadata for one transaction from the Land Registry linked data service by its transaction unique identifier.

Usage

```
ukh_ppd_transaction(id)
```

Arguments

id	Character. A transaction unique identifier (GUID, with or without curly braces).

Value

A one-row data frame with the transaction fields, or an empty data frame if the transaction is not found.

See Also

Other price paid data: ukh_ppd(), ukh_ppd_address(), ukh_ppd_bulk(), ukh_ppd_summary(), ukh_ppd_years()

Examples

```
op <- options(ukhousing.cache_dir = tempdir())
try({
  tx <- ukh_ppd_transaction("{A4C5B0C6-4D5D-47E2-E053-6C04A8C07E7C}")
  tx
})
options(op)
```

ukh_ppd_years *Price Paid Data across multiple years*

Description

Convenience wrapper that calls ukh_ppd() for each year in a vector and row-binds the results. Caches each year independently.

Usage

```
ukh_ppd_years(years, ...)
```

Arguments

years	Integer vector. Years to fetch.
...	Additional arguments passed to ukh_ppd() (e.g. la, postcode, property_type).

Value

A single data frame combining transactions from all requested years.

See Also

Other price paid data: ukh_ppd(), ukh_ppd_address(), ukh_ppd_bulk(), ukh_ppd_summary(), ukh_ppd_transaction()

Examples

```
op <- options(ukhousing.cache_dir = tempdir())
try({
  five_year <- ukh_ppd_years(2020:2024, la = "Westminster",
                             property_type = "flat")
  nrow(five_year)
})
options(op)
```

---

ukh_regions *List valid UK HPI region slugs*

Description

Returns a data frame of common UK HPI region slugs with their names, GSS codes, and tier (country, region, county, or local authority). Useful for looking up the slug to pass to ukh_hpi().

Usage

```
ukh_regions(tier = c("all", "country", "region", "county", "la"))
```

Arguments

tier	Character. Filter by tier: "all" (default), "country", "region", "county", or "la".

Details

This is a selection of the most commonly used regions, not an exhaustive list. The UK HPI covers 441+ areas total; any valid slug can be passed to ukh_hpi() directly.

Value

A data frame with columns slug, name, gss_code, and tier.

See Also

Other helpers: `ukh_sparql()`

Examples

```
# All regions
head(ukh_regions())

# Just the nine English regions
ukh_regions(tier = "region")

# Country-level series
ukh_regions(tier = "country")
```

`ukh_sparql` *Run a SPARQL query*

Description

Runs a SPARQL query against one of the supported endpoints and returns the result as a data frame. Useful for queries that aren't covered by the dedicated helpers, including custom HPI aggregations and Price Paid Data lookups by postcode.

Usage

```
ukh_sparql(query, endpoint = "land-registry", timeout = 60L)
```

Arguments

`query`	Character. A SPARQL query string.
`endpoint`	Character. `"land-registry"` (default), or a full URL to any SPARQL endpoint.
`timeout`	Integer. Request timeout in seconds. Default `60`.

Details

The Land Registry endpoint is free, requires no authentication, and covers HPI and Price Paid Data. MHCLG's Open Data Communities endpoint was retired in 2026, so `endpoint = "opendatacommunities"` now stops with an error.

Value

A data frame of bindings. Column names match the SELECT variables in the query.

See Also

Other helpers: `ukh_regions()`

Examples

```
op <- options(ukhousing.cache_dir = tempdir())
try({
  # All HPI observations for Westminster in January 2020
  q <- '
  PREFIX ukhpi: <http://landregistry.data.gov.uk/def/ukhpi/>
  SELECT ?hpi ?avgPrice WHERE {
   <http://landregistry.data.gov.uk/data/ukhpi/region/city-of-westminster/month/2020-01>
      ukhpi:housePriceIndex ?hpi ;
      ukhpi:averagePrice    ?avgPrice .
  }'
  ukh_sparql(q)
})
options(op)
```

---

ukh_transactions *Transaction volumes for a region*

Description

Returns monthly residential transaction counts for a UK region. This is a thin wrapper over `ukh_hpi()` that extracts the `sales_volume` column with its date. Transaction volumes lag the headline index by approximately five months because the Land Registry needs the full transaction set to settle.

Usage

```
ukh_transactions(region, from = NULL, to = NULL, refresh = FALSE)
```

Arguments

`region`	Character. Region slug, GSS code, or common name.
`from, to`	Optional. Date range (YYYY-MM-DD).
`refresh`	Logical. Re-download? Default `FALSE`.

Value

A data frame with `date`, `region`, and `sales_volume`.

See Also

Other house price index: `ukh_hpi()`, `ukh_hpi_compare()`

Examples

```
op <- options(ukhousing.cache_dir = tempdir())
try({
  tx <- ukh_transactions("england", from = "2020-01-01")
  head(tx)
})
options(op)
```

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