

# Index of Private Housing Rental Prices QMI

Quality and Methodology Information for Index of Private Housing Rental Prices, detailing the strengths and limitations of the data, methods used and data uses and users.

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# 1 . Methodology background

<b>National Statistic</b>	No
<b>Survey name</b>	Index of Private Housing Rental Prices
<b>Frequency</b>	Monthly
<b>How compiled</b>	Administrative data
<b>Geographic coverage</b>	UK
<b>Sample size</b>	500,000
<b>Last revised</b>	24 August 2018

## 2 . About this Quality and Methodology Information report

This quality and methodology report contains information on the quality characteristics of the data (including the European Statistical System five dimensions of quality) as well as the methods used to create it.

The information in this report will help you to:

- understand the strengths and limitations of the data
- learn about existing uses and users of the data
- understand the methods used to create the data
- help you to decide suitable uses for the data
- reduce the risk of misusing data

## 3 . Important points

- The Index of Private Housing Rental Prices (IPHRP) measures the change in price of renting residential property from private landlords.
- The index reflects price changes for all privately rented properties, not only newly advertised rental properties.
- The index is calculated using rental data collected by rent officers operating for the Valuation Office Agency, Scottish Government, Welsh Government and Northern Ireland Housing Executive (which includes data provided by [propertynews.com](http://propertynews.com)).

## 4 . Quality summary

## Overview of the IPHRP

The [Index of Private Housing Rental Prices \(IPHRP\)](#) measures the change in price of renting residential property from private landlords. The index is published as a series of price indices covering the UK, its constituent countries and the English regions. All data presented are non-seasonally adjusted. The index does not measure the change in newly advertised rental prices only, but reflects price changes for all private rental properties.

The IPHRP is constructed using administrative data. That is, the index makes use of data that are already collected for other purposes to estimate rental prices. The sources of private rental prices are [Valuation Office Agency \(VOA\)](#), [Scottish Government \(SG\)](#), [Welsh Government \(WG\)](#) and Northern Ireland Housing Executive (NIHE). All these organisations deploy rental officers to collect the price paid for privately rented properties. Data for Northern Ireland also include data provided by propertynews.com. Annually, over 450,000 private rents prices are collected in England, 30,000 in Wales, 25,000 in Scotland and 15,000 in Northern Ireland. The sources of [expenditure weights](#) are the [Ministry of Housing, Communities and Local Government \(MHCLG\)](#), Scottish Government, Welsh Government, Northern Ireland Housing Executive and the VOA.

## Uses and users of the IPHRP

The production of private housing rental statistics is relevant for many purposes. This includes those who use private housing rental statistics to make a wide variety of decisions including provision of housing, mortgage lending decisions, demand for new rental properties and the current state of the rental market. Main users and their uses of housing market statistics include:

- central government – central government use housing statistics to monitor economic performance and policy-making and monitoring
- local government and devolved administrations – local government and devolved administrations use rental market statistics to monitor and develop housing policies; it is also used to understand how changes and policies at national level affect housing at the local authority or devolved level
- financial institutions – rental market statistics are used in making decisions on whether to lend, how much to lend and setting interest rates
- landlords – landlords are interested in whether and where demand for new rental properties exist and the current state of the rental market
- letting agencies – letting agencies are interested in the number of properties being rented and the rent values that they achieve, as well as the types of properties and their location; they need to be able to advise potential landlords on the achievable letting price for their property but also require statistics in running their business

## Strengths and limitations of the IPHRP

A strength of the IPHRP is that it is constructed using large administrative data sources. The sources of private rental prices are [Valuation Office Agency \(VOA\)](#), [Scottish Government \(SG\)](#), [Welsh Government \(WG\)](#) and Northern Ireland Housing Executive (NIHE). All these organisations deploy rental officers to collect the price paid for privately rented properties. Data for Northern Ireland also include data provided by propertynews.com. Annually, over 450,000 private rents prices are collected in England, 30,000 in Wales, 25,000 in Scotland and 15,000 in Northern Ireland.

IPHRP is published as price indices, rather than average prices. It is also only published down to a country and regional level. While actual rental prices cannot currently be published in the IPHRP due to data access constraints, we are actively working to acquire the necessary data through powers of the [Digital Economy Act 2017](#).

# 5 . Quality characteristics of the IPHRP data

## Relevance

The Index of Private Housing Rental Prices (IPHRP) was developed and launched in 2013 in response to the National Statisticians review of [housing market statistics](#) (2012). A main message identified in the review was a gap in official private rental statistics, with no official private rental index available to meet user need.

Since its launch, the IPHRP has multiple potential uses ranging from the assessment of returns from housing investments or buy-to-let property, to the setting or updating of social housing rental prices.

A [Systematic Review of Statistics on Housing and Planning in the UK](#) (2017) found additional demand for actual rental prices for all four countries that can be compared over time and across geographies. While actual rental prices cannot currently be published in the IPHRP due to data access constraints, we are actively working to acquire the necessary data through powers of the [Digital Economy Act 2017](#).

We continue to seek feedback on how we can develop the IPHRP further. If you would like to share your feedback on the IPHRP, you can contact us by email at [hpi@ons.gov.uk](mailto:hpi@ons.gov.uk).

## Accuracy and reliability

Estimates are based on a sample rather than a census. Data underlying IPHRP are from a known rather than random sample as rent officers collect rents from agents who are willing to provide data on their rents. To ensure a representative sample, rent officers in Valuation Office Agency (VOA) and the devolved Scottish and Welsh Governments and Northern Ireland Housing Executive are given targets to collect rental data in each area sufficient to represent 10% of the private rental market based on the 2011 Census.

Rent officers are expected to maintain a high standard of knowledge of the private rental market in their area and over time the collection is refined using local market knowledge to reflect the changing rental market. This is a combined approach of regular and targeted collection based on market intelligence results in a representative sample across each area.

In processing the data, various procedures are in place to ensure that errors are minimised, such as:

- data cleaning removes cases with missing data and erroneous data
- records that have rent prices too high or too low are flagged in the process and sent to the provider as a query; this is investigated and amended in the dataset where required
- records that have had characteristics change, such as moving from a two-bed property to a three-bed property, are also queried with the provider and, again, amended where required

The same rental data used in IPHRP are also used to construct the owner occupiers' housing costs component of the Consumer Prices Index including owner occupiers' housing costs (CPIH) under the rental equivalence approach. The quality assurance practices of the VOA, Scottish and Welsh Government data can be found in [Annex A of the CPIH quality assurance of administrative data](#).

## Output quality

The IPHRP represents growth in the price of private rental properties within a geographic area. This may differ to the growth of individual properties within that geography.

IPHRP is currently released as an [Experimental Statistic](#). While the methodology for IPHRP is final, Northern Ireland data were previously excluded from the price index. We have since worked with [Northern Ireland Housing Executive](#) to secure private rental data for Northern Ireland with results first published in our August 2018 release. The IPHRP is [scheduled](#) to be assessed against the [Code of Practice for Statistics](#) in early 2019 with the aim of achieving [National Statistics](#) status for the release.

## Coherence and comparability

Currently, there are many different sources of rental price statistics published in addition to the Index of Private Housing Rental Prices. However, once adjustments are made for differences in what each are trying to measure, the IPHRP measure of rents is more closely aligned with the other sources of rental prices.

Some of the differences can be explained by [compositional changes and quality changes](#) in the stock of rental properties. Both are specifically excluded from IPHRP to ensure that only pure price change is captured in the index. Put another way, the aim of the IPHRP is to compare “like with like”.

In addition, there are methodological differences in the way rental prices can be measured. One approach is to measure the stock of rents; that is, aiming to capture the price of all properties in the rental market, which is what IPHRP measures. The second approach is to measure the flow of rents, in other words, to capture the price of new lettings made in the reference period. Both approaches yield different results.

You can read more about the differences between the various rental price measures and their strengths and limitations in our quarterly article [Private rental growth measures, a UK comparison](#).

## Concepts and definitions

Although not governed by legislation itself, the Index of Private Housing Rental Prices (IPHRP) series is used within the UK Harmonised Index of Consumer Prices (HICP), defined by a series of legally binding EU regulations (Council Regulation Number 2494/95). The HICP regulations are obligatory in every EU member state. Eurostat, on behalf of the commission, undertakes an ongoing compliance monitoring programme to evaluate compliance with the HICP regulations.

The importance of this index was reflected in the development of a [European regulation](#), introduced in February 2013, which was the first stage in the introduction of owner occupiers' housing costs (OOH) into the Harmonised Index of Consumer Prices. Within the UK, this is measured using a method called rental equivalence to measure OOH. Rental equivalence uses the rent paid for an equivalent house as a proxy for the costs faced by an owner occupier. In other words, this answers the question “how much would I have to pay in rent to live in a home like mine?” for an owner-occupier.

Furthermore, the Ministry of Housing, Communities and Local Government (MHCLG) provides [a list of definitions of general housing terms](#).

## Accessibility and clarity

All the statistics published by Office for National Statistics (ONS) are available under the [Open Government Licence](#), free of charge to all. We are committed to publishing open data where it is possible to do so.

The latest [Index of Private Housing Rental Prices \(IPHRP\) statistical bulletin](#) with accompanying briefing notes and datasets can be downloaded for free from 9.30am on the day of publication.

More details on related releases can be found on the [release calendar on GOV.UK](#). If there are any changes to the pre-announced release schedule, public attention will be drawn to the change and the reasons for the change will be explained fully.

For any general enquiries on the IPHRP series, compilation methods, developmental articles, quality information or difficulties in finding the latest figures, please contact us via email at [hpi@ons.gov.uk](mailto:hpi@ons.gov.uk).

## Timeliness and punctuality

The IPHRP is a monthly series and has been published monthly since February 2016. Prior to then, it was published quarterly. The time of the publication of the IPHRP is reliant on the data delivery from the various data sources (Scottish Government, Welsh Government, Northern Ireland Housing Executive and Valuation Office Agency). The statistical bulletin is published on the second or third Wednesday following the reference period.

For more details on related releases, the release calendar is available online and provides six months' advance notice of release dates. In the unlikely event of a change to the pre-announced release schedule, public attention will be drawn to the change and the reasons for the change will be explained fully at the same time, as set out in the [Code of Practice for Statistics](#).

## The trustworthiness of our data

We commit to the pillars, principles and practices of the [Code of Practice for Statistics](#) in producing IPHRP. The IPHRP is [scheduled](#) to be assessed against the [Code of Practice for Statistics](#) in early 2019 with the aim of achieving [National Statistics](#) status for the release.

## 6 . Methods used to produce the IPHRP data

Private rents data are collected separately in England, Scotland, Northern Ireland and Wales by rent officers as part of their responsibilities to administer functions relating to Housing Benefit and Universal Credit. This includes the Local Housing Allowance (LHA) and Local Reference Rent (LRR) schemes. In all administrations, rent officers collect rental prices from agents and landlords who are willing to provide data. The sample is not random but procedures are in place to ensure the collection is representative of the private rental market.

Further details on the collection for each country are provided in the following section.

### Main data sources

#### VOA (Valuation Office Agency)

The collection of private rents in England is administered by the Valuation Office Agency (VOA), using evidence of rents paid in the private rented sector. Collection results in a very large source of private rental data that is representative of the private rental market, although information is provided to rent officers on a goodwill basis.

Landlords and letting agents provide VOA rent officers with data pertaining to the properties they let. Annually, around 500,000 prices are now collected. This information is captured electronically in the VOA's lettings information database. Checks are carried out at the point of entry to ensure that any Housing Benefit-funded tenancies are excluded from this database. All the lettings information is provided on a goodwill basis.

VOA instructs their rent officers to ensure that the letting information that they collect is representative of the full range of local market rents in each Broad Rental Market Area (BRMA). Prices are collected from landlords, letting agents and tenants, with the aim to collect approximately 15% of data from sources other than letting agents. To ensure a representative sample, rent officers in VOA are given targets to collect rental data in each area sufficient to represent at least 10% of the private rental market based on the 2011 census.

Rent officers are expected to maintain a high standard of knowledge of the private rental market in their area and over time the collection has been refined using local market knowledge to reflect the changing rental market. This is a combined approach of regular and targeted collection based on market intelligence results in a representative sample across each area. For more information on ensuring the quality of the data, please refer to the [IPHRP quality assurance of administrative data \(QAAD\) report](#).

Rent officers are alerted, via a quarterly report, of properties that are about to reach a 12-month anniversary since their last update. However, there is no formal procedure for VOA rent officers to revisit previous properties. As a result, some properties may drop out of the sample.

VOA rents data are available from 2005 onwards. However, the introduction of the Local Housing Allowance (LHA) in 2008 resulted in changes to collection practices. As a result of these changes, the sample used to construct private housing rental indices grew from around 95,000 in 2008 to around 195,000 in 2010.

The LHA is much more transparent and open to scrutiny than LRR. With its introduction there was a need for rent officers to compile and maintain a robust and representative sample of the private rental market. Dedicated teams of rent officers were formed to specialise in data collection. Guidance, training and monitoring methods were reviewed, which included introducing more effective and consistent approaches to following up data, and an effort was made to improve the awareness of the rent officers' role. This helped create a more receptive environment to data collection.

## **Scottish Government**

Rental data for Scotland are currently provided by Rent Service Scotland, part of the Community Analytical Services Division (formally known as the Rent Registration Service) of the Scottish Government. It is responsible for gathering rental prices and analysing local rental markets to provide Scottish Local Authorities with LHA figures. This information on the rental market is collected by market rental evidence teams, which are in regular contact with landlords and letting agents. Annually, around 30,000 prices are collected. As well as setting the LHA figures, it provides advice to local authorities in assessing claims for Housing Benefit made before 7 April 2008 under the LRR scheme. Rent Service Scotland also undertakes Fair Rent valuations for regulated tenancies that began in Scotland prior to 2 January 1989. The service operates from three offices in Edinburgh, Glasgow and Dundee and employs 12 Scottish Government staff.

Rent officers use their knowledge and experience to ensure that data collected reflect the mix of properties in the area as far as possible. Rents are gathered from a diverse range of sources, principally internet listings, but, unlike England and Wales data, are mainly based on advertised, rather than achieved, rents. All information collected is from open market sources, never from landlords who advertise to people on housing benefits, intermediate or mid-market rents and/or halls of residence. Data for Scotland are available from 2011. All the lettings information is provided on a goodwill basis.

## Welsh Government

Rent Officers Wales, part of the Housing Policy Division of the Welsh Government, provide rental data that are used to construct the Wales estimate. Residential accommodations in the private rented sector in Wales are valued by rent officers who provide an independent and impartial valuation service of residential properties. The market rental evidence team of Rent Officers Wales are in regular contact with landlords and letting agents who provide them with the latest up-to-date information, on a voluntary basis, to ensure all valuations are based on current open market rents.

Rent Officers Wales came into existence in 2003 when it was amalgamated from eight separate regions in Wales and brought under the Welsh Government. Rent officers were first appointed in 1967 to administer Fair Rents but in 1989, when rents were de-regularised, additional functions were added whereby rent officers assessed rents for which Housing Benefit was being claimed. Evidence of market rents has been collected since then. Systems and methodology were radically updated in 2008 to take account of the commencement of LHA, meaning that data for Wales are available from 2009 onwards. Annually, around 25,000 prices are collected.

For more information on administrative sources of data that Office for National Statistics (ONS) uses to produce statistics (including a list of administrative sources), or that are available for use in the production of statistics in the future, and information on statistical techniques for using administrative data, please see the [Statement of Administrative Sources](#).

## Northern Ireland

Rental data for Northern Ireland are provided by the Northern Ireland Housing Executive (NIHE), working in partnership with Ulster University and propertynews.com. These data are collected to inform the Housing Executive's ongoing research into house prices, rents and affordability in Northern Ireland, and is a combination of two data sources. The first provides data originally collected by the NIHE to calculate Local Housing Allowance (LHA) rates for the administration of private sector Housing Benefit. The LHA data are combined with rental data from propertynews.com to provide coverage across Northern Ireland. Both datasets are based on advertised, rather than achieved, rents.

Ulster University cleans the combined rental data, including removing outliers, invalid observations, multiple entries and anomalies. These cleaned data are passed to ONS, which carries out additional data processing and analysis to feed into the IPHRP.

When the IPHRP was initially launched, Northern Ireland was excluded as the data were neither frequent nor timely enough and the coverage of the data (from propertynews.com exclusively) only included the Belfast Metropolitan area. The use of LHA data alongside data from propertynews.com subsequently improved the coverage to represent the whole of Northern Ireland. In addition, Northern Ireland data are now available monthly, but updated quarterly. Data for Northern Ireland are therefore available from 2015.

The NIHE, in conjunction with Ulster University, publishes a bi-annual report on the Performance of the Private Rental Market in Northern Ireland, which is based on analysis of the combined LHA and propertynews.com data. The NIHE, in conjunction with Ulster University, also published a short overview of rental affordability in 2017, using this database. All of these reports can be accessed on the [NIHE website](#).

## How we process the data



## Sample selection

A stratified random sample is selected from across the UK each January using half of all records collected over the previous 14 months. For example, the January 2018 sample includes prices for properties collected from December 2016 to January 2018. Within this process, duplicate records for the same property are removed so that the most recent record collected is used. Prices to rent a single room in a house in multiple occupancy (HMO) are also removed. The sample, therefore, will give a stock measure of rental prices; that is, both new and existing rentals are accounted for. This is in line with international best practice, although the [Johnson Review](#) (2015) points to recent research that suggests a flow measure may be worth considering; that is, only new lets.

The total sample count for the UK in 2016 was around 300,000. This sample is drawn in January and remains fixed throughout the year. The remaining records form what is referred to as the substitution pool. The size of the substitution pool will fluctuate from month to month as old properties drop out of the data and new properties come in.

## Stratification

The process of stratification ensures that we capture any variation between strata. The data are stratified by Wales, Scotland, Northern Ireland and the nine regions of England. Each of these strata are then further stratified by property type and then by whether the property is furnished or unfurnished. Furnished status is not available for Northern Ireland and so it is assumed that all transactions are unfurnished. The property types used for stratification have been chosen to reflect the characteristics a consumer would consider when purchasing or renting a dwelling. The property types are as follows:

- detached house
- semi-detached house
- terraced house
- flat or maisonette

Stratification results in 96 strata (12 regions multiplied by four property types multiplied by two furnished statuses). Whilst the sample is subdivided into many strata, the sample size in each stratum remains large, with the smallest sample size being 700, for a detached house in London.

## Monthly periods

For England, Wales, Northern Ireland and Scotland, a cut-off date of the 27th of the month, based on the entry date into the system, is applied to the private rental dataset to enable monthly processing. Therefore, each month the dataset covers the period from the 28th of the previous month to the 27th of the current month.

Due to current data collection practices, data will be lagged by around one month, as it can take rent officers up to six weeks to input prices into the collection database. It is unlikely that this would have any implications for the rental index, as rental values do not change much from one month to the next (see Figure E4 of the article [Improvements to the measurement of owner occupiers' housing costs and private housing rental prices](#)). Therefore, any price change will be slow.

## Validity period

To calculate a rental price index, the sample of properties is monitored for price change throughout the year. This is done by matching the records collected each month by rent officers to the existing sample. There is no formal procedure in place that requires rent officers to follow up the sampled properties, although around 40% of sampled properties are followed up around a year later.

Therefore, when a rental price is collected, it is assumed to be valid for 14 months from its entry date into the system, or until an update is received. A 14-month validity period is used as it balances typical contract lengths (which tend to be either 6, 12, 18 or 24 months) against operational practices. In particular, the time it takes rent officers to follow up the same property. There is an emphasis on following up properties between 12 and 14 months since they were last collected, and therefore there are methodological benefits (in terms of significantly improving the number of property updates) to using a 14-monthly validity period over using a 6-month period (which would only capture a very small portion of updates) or a 12-month period (which would capture around half of the updates). Moreover, the 14-month validity period has the additional advantage of mitigating for properties that were originally rented some time ago at much lower prices, as well as limiting the effect of depreciation.

## Property prices updates

The price of an existing property in the sample is updated when a match is identified in the data collected each month (referred to as the input dataset) and the price change is within the acceptable tolerance level (see Example of tolerance check). On average, around 0.1% of England updates fail the tolerance test. If an update is made, the record entry date is amended and the rent for that record becomes valid again for up to 14 months.

Properties in the input dataset that do not match any records in the sample are added to the substitution pool to be used later in the processing. If an update fails the tolerance check then the property is deleted and not included in the sample or returned to the substitution pool.

## Example of tolerance check

The price update is deemed valid if it meets both of the following constraints:

New price < Previous price \* 1.49995

New price > Previous price \* 0.6667

Further information on the rationale for using a 14-month validity period is provided in the article [Improvements to the measurement of owner-occupiers' housing costs and private housing rental prices](#) (see Annex D).

## Comparable property replacements

If a property in the sample has reached the end of its 14-month validity period and no price update has been made, a replacement property of comparable quality is sought from the substitution pool. A replacement is defined as comparable if it has the same:

- property type
- postcode sector
- number of bedrooms
- furnished status (furnished or unfurnished)

And if it has a price quote that meets the same tolerance checks applied to price updates (see Example of tolerance check).

If there is more than one potential replacement property, then the property collected most recently is chosen. When a comparable replacement is found and it passes the tolerance test, then the property is used to replace the outgoing property in the sample. This replacement property maintains its original entry date into the system. By replacing the property that has expired with a comparable replacement, it is assumed that the replacement property is similar enough to the one that it is replacing that any difference in rent is due to price change and not a difference in quality. If a replacement is found, but it fails the tolerance check, then the property is returned to the substitution pool and another replacement is sought. The comparable replacement procedure is summarised in the [flow chart](#).

## Non-comparable property replacements and imputation

If a property in the sample has reached the end of its 14-month validity period and a comparable replacement cannot be found, then the property is replaced by a non-comparable property in the substitution pool from within the same stratum. Although the replacement is non-comparable, an effort is still made to make the replacement property as comparable as possible to the property it is replacing. Therefore, the following priority order is applied to identify a non-comparable replacement:

1. match on stratum, number of bedrooms and local authority
2. match on stratum and number of bedrooms
3. match on stratum and postcode sector
4. match on stratum and local authority
5. match on stratum only

As the name suggests, the replacement property is deemed to be a different quality to the one it is replacing and therefore the price of the new and replaced property cannot be directly compared. No explicit information is available to quantify the difference in quality; therefore, an implicit approach is taken. A new January (base) price is calculated for the new property based on the movement of comparable replacements made within the same stratum in the same month; this movement is referred to as the imputation ratio. For more information about how the imputation ratio is calculated, see Annex E.

Properties that have been used as non-comparable replacements are removed from the substitution pool and replace the expired property in the sample. The non-comparable replacement maintains its entry date into the system. If there is no non-comparable match available then the property is removed from the sample. This information is summarised in the [flow chart](#).

## Methodology used to aggregate private rental price indices

As covered previously, the data are stratified by Wales, Scotland, Northern Ireland and the nine regions of England as well as by property type and whether the property is furnished or unfurnished. For each stratum, elementary aggregates are calculated, which are then weighted together to create an aggregate index. Strata weights are updated annually.

### Elementary aggregates

Elementary aggregates for England are provided by VOA, while we calculate elementary aggregates for Wales, Northern Ireland and Scotland, using the microdata, which are delivered on a monthly basis. Northern Ireland data are delivered on a quarterly basis. All use the same methodology. The Jevons formula (the geometric mean of price relatives, using January as its base month) is used to aggregate private rent prices below the stratum level.

### Dwelling stock data

Dwelling stock data for the rental sector comes from the Ministry of Housing, Communities and Local Government (MHCLG) for England and its regions. The data are collected via the [English Housing Survey \(EHS\)](#), which has a sample size of around 13,300 households. Similar dwelling stock data are also available from the Scottish Government for Scotland, the Welsh Government for Wales and the Department for Communities in Northern Ireland.

For the private rented sector, dwelling stock estimates are also split by the proportion of property types rented privately in Wales, Scotland and the nine regions of England using data from the English Housing Survey and equivalent sources from the other countries.

### Average rental prices

Average rental prices, split by the nine English regions, property type and whether the property is furnished or unfurnished, are provided annually by VOA. These averages are calculated using all the rents data collected by VOA rent officers in the relevant year and are therefore not directly comparable with the sample of rents followed for the private rents price indices.

We calculate the average rental prices for Wales, Scotland and Northern Ireland by using the microdata delivered. Again, all the data collected in the relevant year are used to calculate these averages and therefore it does not compare directly with the sample of rents followed for the private rents price indices. The averages for a given year cover the period from February of the previous year to January of the current year. For example, the average price used for the 2014 weights is based on data from the period February 2013 to January 2014.

### Strata weight construction

To calculate timely expenditure strata weights, the most recently available data are used. For a given index year *y*, the expenditure shares are based on the time periods set out in Table 1.

**Table 1: Source data for expenditure shares in index year y**

	Period
Dwelling stock data	y-3 years
Average prices data	y-1 years

Total expenditure is calculated by multiplying dwelling stock counts by average rental prices for each combination of region or country, property type and furnished or unfurnished status. The relative expenditure weight for each stratum is then calculated using the aggregate level expenditure.

As with the price sample, this weighting procedure gives 96 different expenditure weights for IPHRP, one for each of the nine English regions plus Wales, Scotland and Northern Ireland, four property types and furnished or unfurnished status. [Indicative weights](#) are published on an annual basis.

## How we analyse the data

Once the data have been aggregated, the resulting series are analysed by various breakdowns, over time and against other published sources of rental price growth. Any unexpected movements within the series are explored through the record-level data. Monthly curiosity meetings are held to review the new data and discuss any long-term trends in the data and its drivers.

## How we quality assure the data

During our processing each month, standard reports and metrics are produced. These metrics are analysed to ensure our sample remains within acceptable parameters to produce high-quality statistics. These metrics include information on:

- sample size
- number of replacements required
- number of successful replacements

Additional metrics are derived from this and monitored on a monthly basis:

- reduction in sample size – if there is any drop in sample size within the year, the data provider is contacted to clarify the reason, as this could indicate an error in the process or data
- replacement success – if the replacement success rate falls below 70%, then the data provider is contacted as this could indicate insufficient records in the replacement pool, perhaps caused by changes in collection practices
- percentage of updates – if the percentage of updates falls below 2%, then the data provider is contacted, as this could indicate changes in practices in following up properties

Month-on-month growth in the index is analysed at region by property type with any movements greater than absolute 1% flagged for further analysis. These can then be queried with the data provider.

The process of aggregating the country elementary aggregates to higher levels is run by two individuals independently in what is referred to as a “double run”. Any internal processing errors are captured and resolved through this approach.

Following the aggregation of the data, the resulting series is analysed at a regional level and checks are made between the various measures that are based on the same underlying data – that is, comparisons are made between owner occupiers’ housing costs (OOH), [Index of Private Housing Rental Prices \(IPHRP\)](#), Consumer Prices Index (CPI) rent and Retail Price Index (RPI) rent. Any unexpected movements within the series, which are driven by the raw data, are queried with the data providers who liaise directly with rental officers. Low-level aggregates (sample averages at local authority district level) for England and record-level data for Wales and Scotland are used to explore movements in the index further. Monthly meetings between operational contacts are used to review the latest month and discuss any long-term trends in the data and its drivers.

## How we disseminate the data

The [IPHRP bulletin](#) is published monthly on the ONS website. Data are made available through:

- statistical bulletins with Great Britain, country and regional reports
- downloadable data available as an Excel spreadsheet

A table of weights analysis providing information on the aggregate weights used for the index is published annually.