

Article

Measures of owner occupiers' housing costs, UK: January to March 2020

The different approaches of measuring owner occupiers' housing costs (OOH) associated with owning, maintaining and living in one's own home.

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Notice

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An error has been found in the data used to calculate the mortgage interest payments element of the Retail Prices Index (RPI) for February and March 2020. The source data used in the compilation process did not accurately reflect the level of interest rates in the mortgage market. However, in line with the published revisions policy for the RPI, the index will not be revised.

The mortgage interest payments index is a component of OOH(payments) and CPI-H(payments). For this release, we will use the mortgage interest payments index consistent with the RPI. We have chosen not to revise this in OOH to avoid any confusion around publishing a different mortgage interest payments index compared with that published in the RPI.

If OOH(payments) were to be recalculated using the correct interest rate, it would change the OOH(payments) annual growth rate from 1.6% to 2.0% in February 2020, and from 3.9% to 3.6% in March 2020. There is no change to 1 decimal place to the annual growth rate of the CPI-H(payments) series.

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1 . Main points

- Owner occupiers' housing costs (OOH) in the UK, under the rental equivalence approach, have grown by 1.3% over the 12 months to March 2020.
- After incorporating the improvements, OOH according to the net acquisitions approach have grown by 3.7% over the 12 months to March 2020.
- After incorporating the improvements, OOH compiled using the payments approach have grown by 3.9% over the 12 months to March 2020.

2 . Things you need to know about this release

Owner occupiers' housing costs (OOH) are the costs of housing services associated with owning, maintaining and living in one's own home. This is distinct from the cost of purchasing a house, which is purchased partly for the accumulation of wealth and partly for housing services.

OOH is an important component of the household consumption basket. In the Consumer Prices Index including owner occupiers' housing costs (CPIH), the OOH component is measured using the rental equivalence approach, OOH(RE). However, there are other approaches to measuring OOH.

In this article, we focus on two alternative approaches: payments (OOH(payments)) and net acquisitions (OOH (NA)). The OOH(payments) approach is also used in the [Household Costs Indices \(HCIs\)](#), which aim to reflect changing prices and costs as experienced by households. This article compares these approaches to the rental equivalence approach and discusses the performance of the different measures over time, in prevailing economic conditions.

The coronavirus (COVID-19) pandemic continues to create new challenges to the way we measure and track the UK economy. We published our plans explaining how we aim to overcome the challenges particular to UK prices in [Coronavirus and the effects on UK prices](#). This plan explains that we have suspended the production of the UK House Price Index (HPI) publication from the April 2020 index until further notice. This is because the number of housing transactions for April is expected to reduce significantly because of the government's response to the pandemic, making it very difficult to produce a measure of UK house prices that would be representative of any true transaction activity within the housing market. We intend to reinstate the UK HPI as soon as possible.

The suspension of the UK HPI from April 2020 will impact components of the OOH(NA) that depend on it and the Stamp Duty Index that is a component of both OOH(NA) and OOH(payments). Users should therefore note that there may be an impact on the next planned publication of [Measures of OOH](#) due in September 2020, which will include data from Quarter 2 (Apr to June) 2020.

Recent improvements were introduced to the way that we calculate the Stamp Duty Index, a component of both OOH(NA) and OOH(payments). In this release, we have further improved the production process, affecting both OOH indices and the subsequent hybrid CPIH measures using both approaches considered in this article. These improvements include isolating the residential Stamp Duty receipts expenditure from all Stamp Duty expenditure and recalculating the CPIH weights back series using new expenditure totals. The impacts of these changes are discussed in [Section 6: Impact of recent improvements](#).

The first article in the series provides [more information about the different approaches to measuring OOH](#) to aid understanding of the differences in concept, underlying methodology and data sources as well as associated strengths and limitations to each approach. There have also been several "Spotlight" sections produced, which focus on different topics relating to OOH. These topics are listed in [Section 8: Related links](#).

Please note that the payments and net acquisitions approaches are both [experimental](#) indices and therefore we would caution against any use other than for research purposes. More information on the methodology for each approach can also be found in the [CPIH compendium](#).

The publication schedule and format for this article is changing. The existing release schedule includes a quarterly update article and associated datasets. The datasets will continue to be published quarterly, and a condensed version of the quarterly analysis will be included in the [Index of Private Housing Rental Prices \(IPHRP\) bulletin](#) instead. A longer analytical article will now be published annually in June to coincide with the publication of the Quarter 1 (Jan to Mar) data for each year. This new schedule will begin with the next scheduled publication of [Measures of OOH](#) in September 2020.

We invite you to email feedback related to this release to hpi@ons.gov.uk.

3 . Results

Figure 1 presents the cumulative indices for each approach and Figure 2 shows the annual 12-month growth rates. Over Quarter 1 (Jan to Mar) 2020, all three indices experienced increases. Owner occupier's housing costs (OOH) net acquisitions (OOH(NA)) increased by 2.6 index points; OOH payments (OOH(payments)) increased by 2.2 index points; and OOH rental equivalence (OOH(RE)) increased by 0.2 index points. The increase seen in OOH(NA) and OOH(payments) were largely because of a substantial movement from February to March 2020, increasing by 1.3 and 2.0 index points respectively.

The growth rate for OOH(RE) remains stable, fluctuating between 1.0% and 1.3% since December 2017. The difference between the three indices can be seen in the 12 months to March 2020, when the growth rate of OOH (RE) was 1.3%, compared with 3.9% for OOH(payments) and 3.7% for OOH(NA).

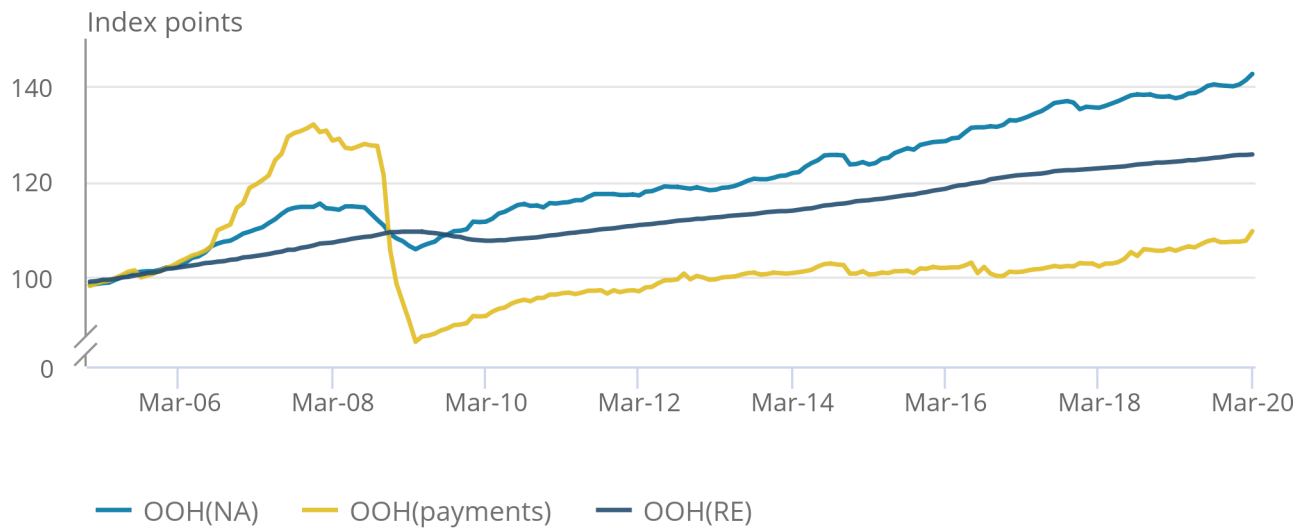
The difference in the growth rates between the three measures of OOH were within 0.7 percentage points in Quarter 4 (Oct to Dec) 2019 and January 2020, but in February 2020 they began to diverge more significantly. The growth rate for OOH(NA) jumped by 0.6 percentage points between January and February 2020 and by a further 1.2 percentage points in the period up to March. The growth rate for OOH(payments) fell by 0.2 percentage points between January and February 2020, but then rose by 2.3 percentage points over the single period up to March. By March 2020, the difference in the growth rate between OOH(NA) and OOH(RE) was 2.4 percentage points, the largest since November 2017. Similarly, the difference between OOH(payments) and OOH (RE) was 2.6 percentage points, the largest since July 2017.

Figure 1: The index for the net acquisitions approach – OOH(NA) – has shown the strongest growth over the period since 2005

UK, January 2005 to March 2020

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UK, January 2005 to March 2020



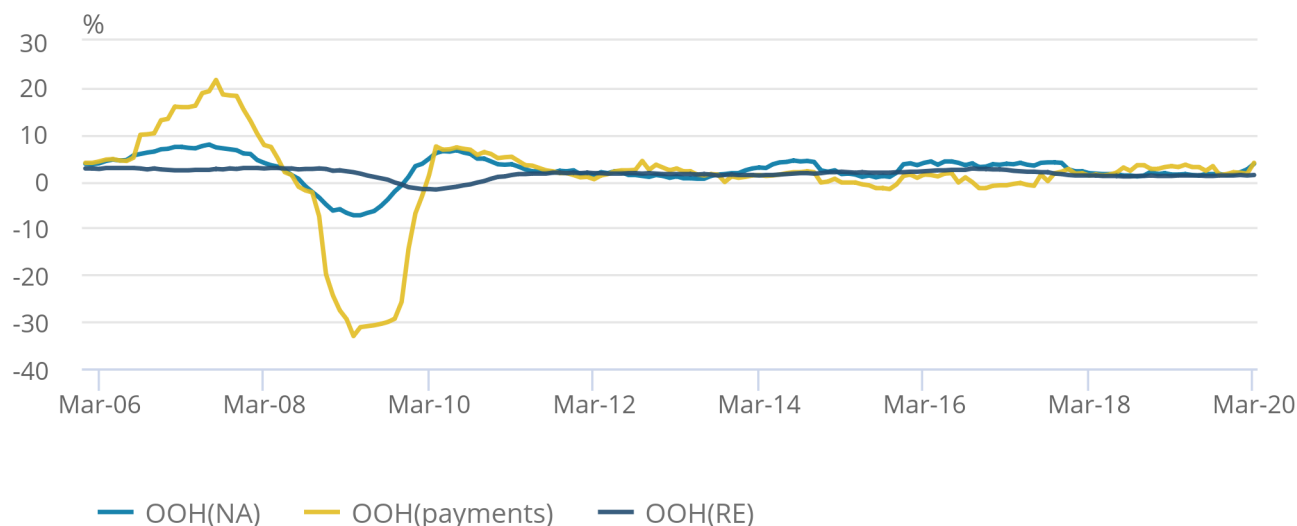
Source: Office for National Statistics – Measures of owner occupiers' housing costs

Figure 2: The 12-month growth rates for OOH(NA) and OOH(payments) are greater than the 12-month growth rate of OOH(RE) for the year ending March 2020

UK, January 2006 to March 2020

Figure 2: The 12-month growth rates for OOH(NA) and OOH(payments) are greater than the 12-month growth rate of OOH(RE) for the year ending March 2020

UK, January 2006 to March 2020



Source: Office for National Statistics – Measures of owner occupiers' housing costs

4 . Main contributions to these results

Stamp duty data use data from the UK House Price Index (HPI). Because of the introduction of government measures to reduce the spread of the coronavirus (COVID-19) in March 2020, fewer transactions were available than expected for the March 2020 UK HPI. As a result, there may be increased volatility in this month's estimates. This impacts both OOH(payments) and OOH(NA).

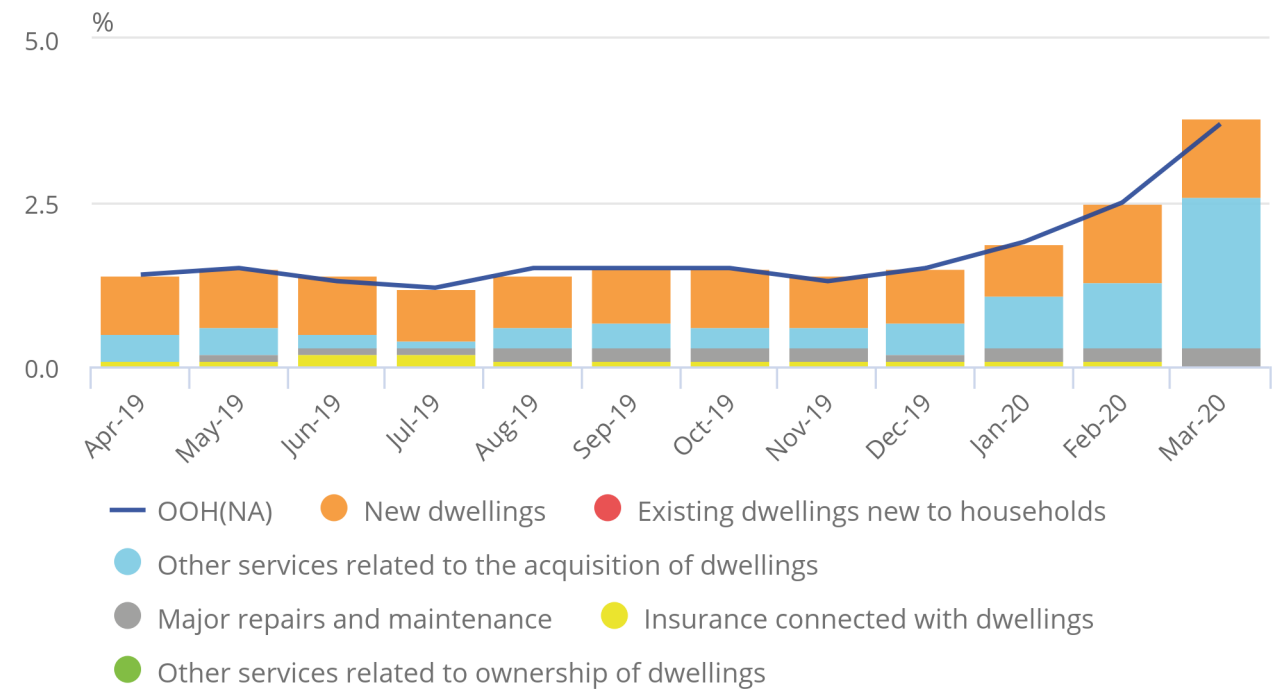
Figure 3 shows the contributions to the 12-month growth rate for owner occupier's housing costs (OOH) net acquisitions (OOH(NA)) from April 2019 to March 2020. An increase in the contributions to growth from the "other services related to the acquisition of dwellings", from 1.0 percentage point to 2.3 percentage points between February and March 2020, was the main factor in the rise seen in the overall 12-month growth rate for OOH(NA) in March 2020. "Other services related to the acquisition of dwellings" includes transfer costs and stamp duty.

Figure 3: The increase in the 12-month growth rate in March 2020 for OOH(NA) was driven by "Other services related to the acquisition of dwellings"

UK, April 2019 to March 2020

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UK, April 2019 to March 2020



Source: Office for National Statistics – Measures of owner occupiers' housing costs

Notes:

1. "New dwellings" includes self-builds and renovations and the acquisition of new dwellings.
2. "Other services related to the acquisition of dwellings" includes transfer costs and stamp duty.

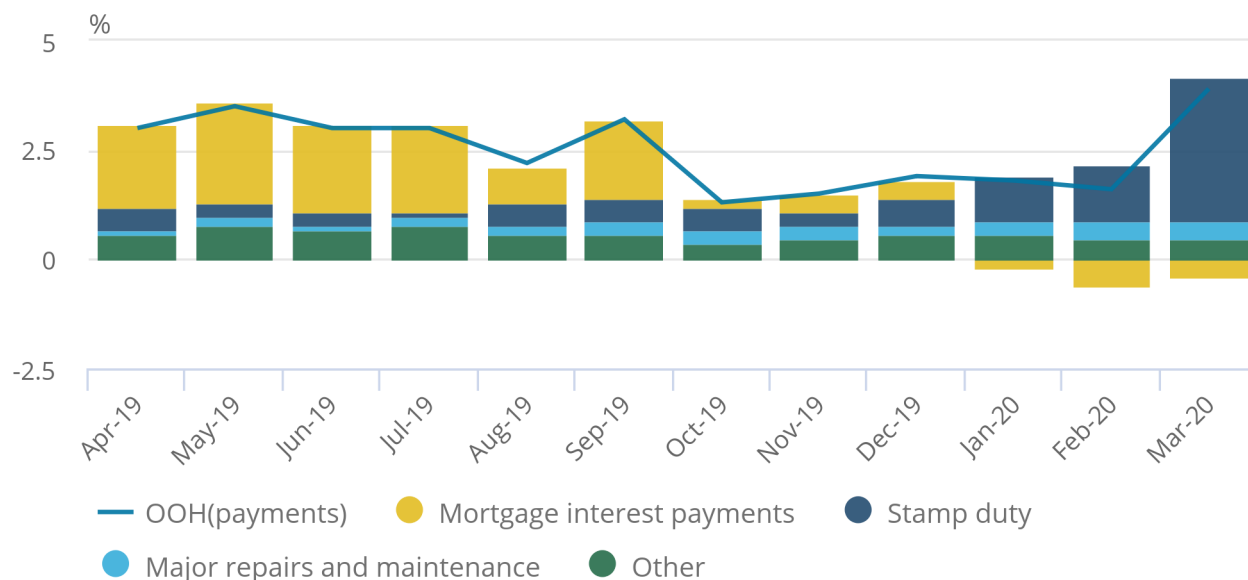
Figure 4 shows the corresponding contributions chart for OOH payments (OOH(payments)). In the latest quarter, Quarter 1 (Jan to Mar) 2020, a rise in the contributions to growth from Stamp Duty resulted in an increase in the 12-month growth rate in March 2020. The contribution from Stamp Duty increased from 1.3 percentage points to 3.3 percentage points between February and March 2020.

Figure 4: An increase in the contributions to growth from Stamp Duty resulted in an increase in the OOH (payments) 12-month percentage growth in the latest quarter

UK, April 2019 to March 2020

Figure 4: An increase in the contributions to growth from Stamp Duty resulted in an increase in the OOH(payments) 12-month percentage growth in the latest quarter

UK, April 2019 to March 2020



Source: Office for National Statistics – Measures of owner occupiers' housing costs

Notes:

1. "Other" includes dwelling insurance, ground rent, estate agent fees, home-buyers survey and house conveyancing.

From Figure 3 and Figure 4, it is notable that the growth for both the OOH(NA) and OOH(payments) indices is being driven mainly by the Stamp Duty component. There have been no changes to the rules to how Stamp Duty is calculated nor have there been changes to the equivalent taxes in Scotland and Wales, which are also measured. Therefore, it follows that a rise in house prices is responsible for the growth of Stamp Duty.

In the most recent [UK House Price Index \(HPI\) bulletin](#), March 2020, UK average house prices increased by 2.1% over the year to March 2020, and markedly an increase of 4.7% was seen over the same period for London's average house prices, the largest 12-month growth London has seen since December 2016. The Stamp Duty Index is particularly sensitive to the change in average house prices in London, owing to higher property prices and a higher proportion of the price eligible for Stamp Duty taxes when compared to other regions. Therefore, this increase in the average house prices is likely to explain some of the growth seen in Stamp Duty. However, we cannot rule out some contributing effects owing to fewer transactions than normal as explained in the warning earlier in the section.

5 . Recent improvements

Improvements to Stamp Duty

There are two further improvements that have been made to the production of the Stamp Duty Index. The first change has been the removal of the aggregation step at the UK regional level (England, Scotland and Wales), since the data used to calculate the index are the complete population and not a sample. Previously, a separate index was calculated for each region in which different tax rules apply (England, Wales and Scotland; microdata on housing transactions are not currently available for Northern Ireland). The UK Stamp Duty Index was then calculated by aggregating these indices with weights determined by the proportion of total Stamp Duty yield attributed to each region.

Now, the different tax rules are applied directly to the properties in place to generate Stamp Duty yields for each property transaction. This means that instead of directly weighting the regional indices together, implicit weighting is now used based on the proportion of transactions that occur in each region. The index is then directly calculated from all UK stamp tax yields, rather than weighting the regional indices. The impact of this change has been negligible.

The second change has been the isolation of residential Stamp Duty expenditure as opposed to all Stamp Duty expenditure, which includes an element of commercial Stamp Duty. Owner occupiers' housing costs (OOH) is part of the family of consumer price indices, and therefore measuring the change in price for owning and occupying commercial property is not desirable. The Stamp Duty Index is calculated using only residential property transactions, but the expenditure data being used to calculate the weights were based on total Stamp Duty receipts, residential and non-residential inclusive.

Each of the three tax authorities now publish a detailed breakdown of Stamp Duty receipts for each applicable region, so it presented an opportunity to isolate only the residential portion of Stamp Duty receipts. These data can be found here:

- [Quarterly Stamp Duty Statistics](#)
- [Land and Buildings Transaction Tax Statistics](#)
- [Land Transaction Tax Statistics](#)

The one issue encountered was that the data series present in the Stamp Duty Land Tax (SDLT) quarterly Stamp Duty statistics only goes back as far as 2009, when data back to 2003 were needed (the OOH index starts in 2005, but weights are calculated using expenditure data from two years prior). A supplementary dataset was identified, published by HM Revenue and Customs (HMRC) called [Yield attributable to residential and non-residential land and property: Table 15.3](#), which provides a percentage breakdown of residential and non-residential Stamp Duty yield for the missing years that are required. A value for residential Stamp Duty expenditure could subsequently be calculated by multiplying these percentages by the original dataset of total Stamp Duty expenditure. This back series is joined with the expenditure series from the tax breakdown datasets to get an annual expenditure series for residential Stamp Duty yield.

Over the period observed by these indices, the average percentage split of Stamp Duty yield has been roughly 69% residential to 31% non-residential. If the expenditure total for Stamp Duty is reduced by 31%, then the contributing weight of the Stamp Duty Index to the OOH payments (OOH(payments)) and OOH net acquisitions (OOH(NA)) indices will be similarly reduced. Since the Stamp Duty Index has been a faster growing index over the observed period than both of these headline indices, we can expect to see an overall impact of a decrease in the growth previously reported before these changes.

There will also have been an impact on the contribution of OOH(NA) and OOH(payments) to both hybrid Consumer Prices Index including owner occupiers' housing costs (CPIH) measures produced, CPI-H(NA) and CPI-H(payments), as weights are recalculated using the new expenditure totals for all components of OOH for each approach. The impact of this change is presented in the following section.

Improvements to the CPIH weights

The final improvement for this production round was a recalculation of the back series of weights for both hybrid CPI-H measures. In the [July to September 2019 publication](#), both OOH back series were recalculated using revised expenditures from the most recent [Blue Book release](#). In this publication, the use of residential Stamp Duty expenditure as opposed to all Stamp Duty expenditure has been incorporated into the production method. Both of these changes have impacted the overall expenditure totals for both measures of OOH, which in turn affects the weighting of OOH within the CPIH.

The back series of CPIH weights has been recalculated using these revised expenditure totals, and the impact is presented in the following section.

6 . Impact of recent improvements

Both approaches to owner occupiers' housing costs (OOH) in this article have been affected by the improvements to the Stamp Duty Index (Figure 5 and Figure 6). This section provides an overview of the impact. It focuses on the period to December 2019, as the 2020 weights produced for this article have only been produced using this new methodology.

The change to calculate the UK Stamp Duty Index directly, rather than by aggregating the regional indices with their weights, only begins to affect the OOH indices from 2015 onwards. This was the year in which the Land and Buildings Transaction Tax was introduced in Scotland; therefore, more than one tax was in effect over the geography of the UK and there was a need to aggregate both regions. The impact is negligible, with few periods showing an absolute difference no more than 0.1 percentage points and most having a 0 percentage point impact. A few more periods have been impacted in the OOH payments (OOH(payments)) index compared to the OOH net acquisitions (OOH(NA)) index owing to the Stamp Duty having a little more weight in the final index in the years since 2015.

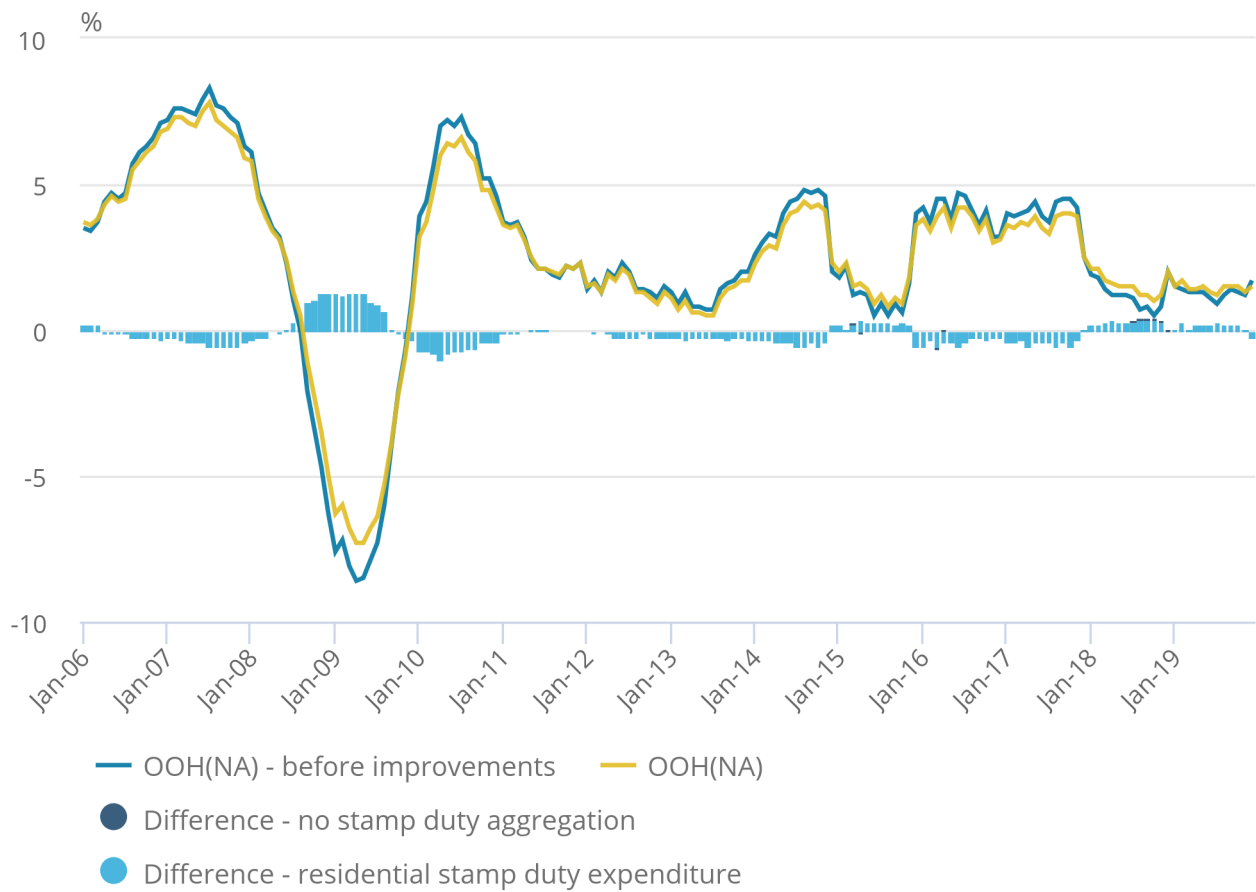
The effect of isolating the residential component of Stamp Duty expenditure has had a more pronounced impact on both the OOH(payments) and OOH(NA) indices. As explained in [Section 5: Recent improvements](#), the total Stamp Duty expenditure has seen on average a reduction of 31% when only residential Stamp Duty receipts are accounted for, and this in turn has affected the weight that the Stamp Duty Index contributes to the OOH indices. This has dampened the effect that the Stamp Duty Index was having on growth by between a 0 and 1.4 absolute percentage point change depending on the period.

Figure 5: The effect of isolating the residential component of Stamp Duty expenditure has had the expected impact of dampening the percentage growth of OOH(NA), whether it is rising or falling

UK, January 2006 to December 2019

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UK, January 2006 to December 2019



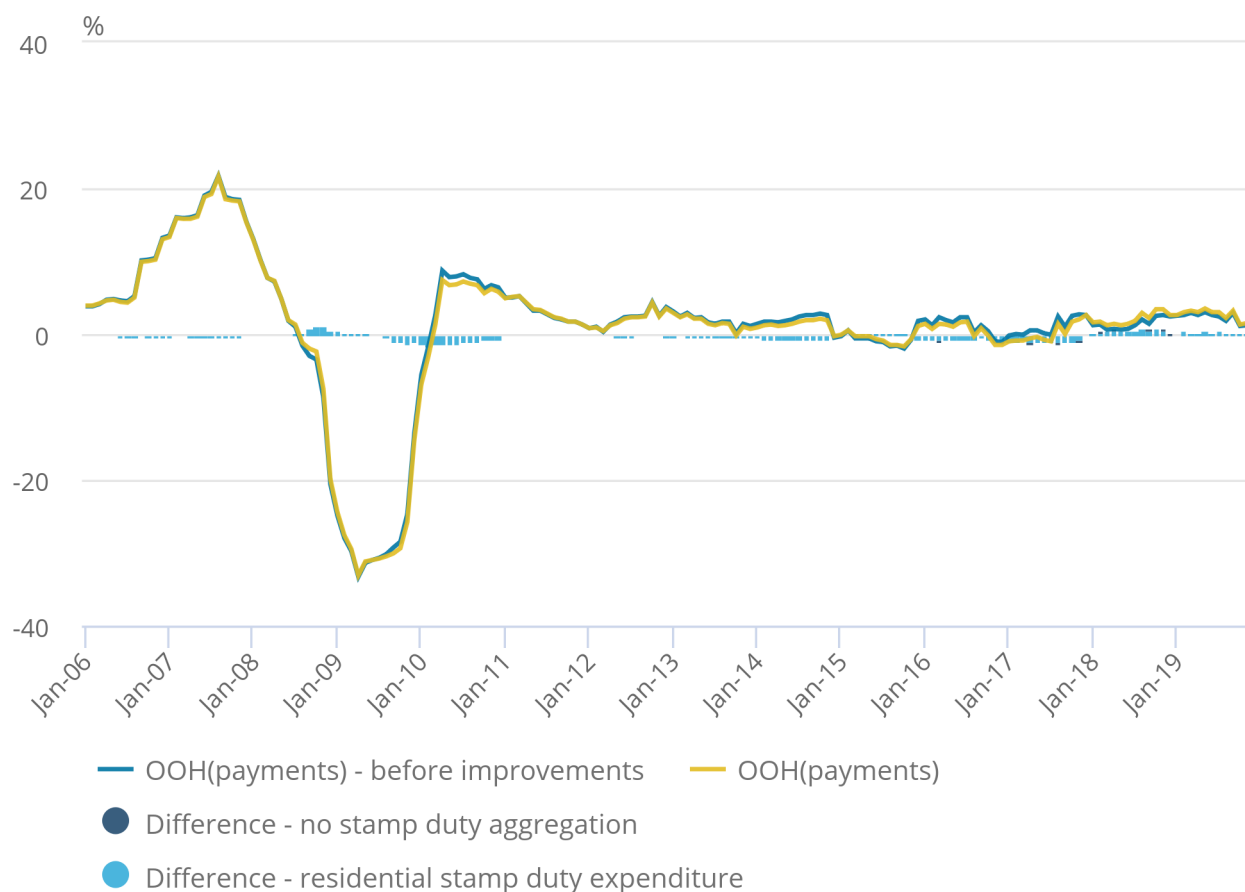
Source: Office for National Statistics – Measures of owner occupiers' housing costs

Figure 6: The effect of isolating the residential component of Stamp Duty expenditure has dampened the percentage growth of OOH(payments), whether it is rising or falling

UK, January 2006 to December 2019

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UK, January 2006 to December 2019



Source: Office for National Statistics – Measures of owner occupiers' housing costs

The hybrid Consumer Prices Index including owner occupiers' housing costs (CPIH) measures, CPI-H(NA) and CPI-H(payments) indices, have also seen some impact from the improvements (Figure 7 and Figure 8).

For both of the hybrid CPI-H indices, the impact of not aggregating the Stamp Duty Index is negligible and cannot be observed in the following charts. The impact of using residential Stamp Duty expenditure has had a similar effect to that of the OOH indices, of dampening the percentage change in growth. However, the effects have been less owing to the CPIH being made up of many more items and subsequently the weight share of Stamp Duty (as a sub-component of OOH) being less. In both indices, there is never more than a 0.1 absolute percentage point change from this improvement.

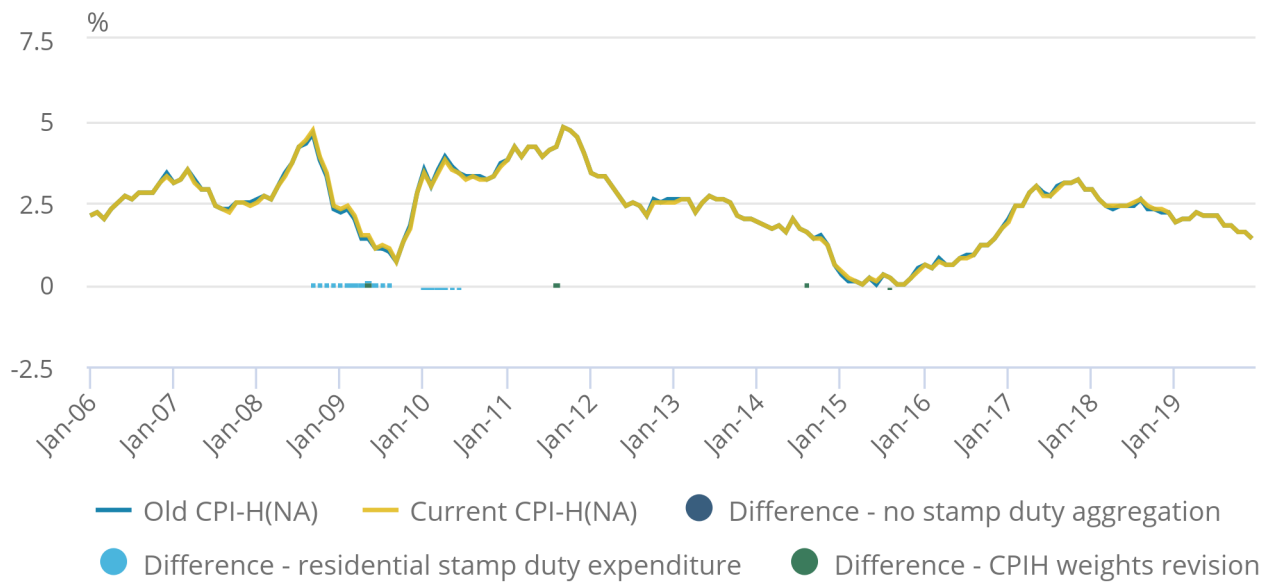
Revising the CPIH weights has had more of an impact on CPI-H(payments) in Figure 8 than it has on CPI-H(NA) in Figure 7. In some periods, the change in absolute percentage points has been at most 0.2 for CPI-H (payments), which is not an insignificant change in the context of the CPIH. For CPI-H (NA), it is no more than 0.1 absolute percentage points.

Figure 7: The impact of using revised CPIH weights and residential Stamp Duty expenditure is observable on CPI-H(NA) around the time of the financial crisis

UK, January 2006 to December 2019

Figure 7: The impact of using revised CPIH weights and residential Stamp Duty expenditure is observable on CPI-H(NA) around the time of the financial crisis

UK, January 2006 to December 2019



Source: Office for National Statistics – Measures of owner occupiers' housing costs

Figure 8: The impact of using revised CPIH weights and residential stamp duty expenditure is observable on CPI-H(Payments) around the time of the financial crisis

UK, January 2006 to December 2019

Figure 8: The impact of using revised CPIH weights and residential stamp duty expenditure is observable on CPI-H(Payments) around the time of the financial crisis

UK, January 2006 to December 2019



Source: Office for National Statistics – Measures of owner occupiers' housing costs

7 . Different approaches to measuring owner occupiers' housing costs

The owner occupiers' housing costs (OOH) rental equivalence approach (OOH (RE)) uses the rent paid for an equivalent house as an estimate of the cost of housing services that are consumed. That is, we value housing services by looking at the cost of the next best alternative to home ownership, namely, renting a property. Importantly, OOH (RE) does not capture changes in asset value. Rather, it measures the change in price of housing services provided.

The OOH payments approach (OOH (payments)) aims to measure the payments related to the ownership of owner-occupied housing. This means that all payments households make as owner occupiers when consuming housing should be included, such as mortgage interest payments, transaction costs and running costs.

OOH (payments) is not our favoured method for measuring OOH in the Consumer Prices Index including owner occupiers' housing costs (CPIH). This is because a consumer price index aims to measure consumption and interest payments represent the cost of borrowing money rather than the cost of consumption. However, OOH (payments) is our preferred measure for the Household Costs Indices (HCIs), which depart from consumption principles and aim to capture households' experience of changing prices and costs. For more information about the HCIs, please see [Developing the HCIs](#).

The OOH net acquisitions approach (OOH (NA)) aims to measure the costs of acquiring a house with household-to-household transactions netted off. The approach theoretically treats a home as the purchase of a good that is part asset (the land) and part consumable (the house) and excludes the land component from the index. OOH (NA) also includes costs associated with buying and maintaining a house, for example, self-builds and renovations, repairs and maintenance, transfer costs, and dwelling insurance.

In practice, while the measure presented here is the best measure of OOH (NA) that we can currently produce, the lack of available source data means that some components are not recorded fully. We therefore advise that OOH (NA) should be used and referred to with caution, and it is consequently not our favoured approach of measuring OOH in the CPIH.

Table 1 shows the components of these different approaches. For more information about each, please see the [CPIH compendium](#) or the [first article](#) in this series.

Table 1: Components of the three approaches of measuring owner occupiers' housing costs		
Rental equivalence Payments		Net acquisitions
Imputed rents	Mortgage interest payments	Acquisition of new dwellings
	Dwelling insurance	Self-builds and renovations
	Ground rent	Existing dwellings new to the OOH sector
	Stamp Duty	Services related to acquisition
	Estate agent fees	Major repairs and maintenance
	Home-buyers survey	Insurance connected with the dwelling
	Major repairs and maintenance	Other services related to ownership of dwellings
	House conveyancing	

Source: Office for National Statistics – Measures of owner occupiers' housing costs

8 . Related links

The topics and links of the focused analyses (“Spotlight” sections) from previous publications include:

- [Spotlight: the relationship between private rents and house prices](#)
- [Spotlight: owner occupiers' housing costs \(OOH\) in the Retail Prices Index \(RPI\)](#)
- [Spotlight: analysis of revisions to OOH rental equivalence \(OOH\(RE\)\) expenditure weights](#)
- [Spotlight: changes to methodology](#)
- [Spotlight: exploratory analysis of the impact of errors in the OOH stratum weights](#)
- [Spotlight: changes to methodology of the OOH payments \(OOH\(payments\)\) approach](#)
- [Spotlight: changes to OOH revisions policy](#)
- [Improvements to Stamp Duty Index methodology](#)

The [most recent Household Costs Indices \(HCIs\) results](#) is also available.