ROYAL STATISTICAL SOCIETY
DATA | EVIDENCE | DECISIONS

SUBMISSION BY THE ROYAL STATISTICAL SOCIETY TO TREASURY SELECT COMMITTEE INQUIRY INTO STUDENT LOANS AND TAXATION OF GRADUATES

14 April 2026

1 Summary

1.1.1 Our evidence concerns solely Question 1c: "Should the interest on a student loan be fixed to RPI, CPI, or another measure?" We consider that:

- RPI is not at present suitable.
- CPI or CPIH would be suitable; with CPIH having the advantage of being the direction of travel.
- The Household Costs Indices (HCIs) are not yet sufficiently developed to be used but may be a candidate in the future.

2 Introduction

2.1.1 The RSS is a membership organisation and charity, founded in 1834. It is a learned society and professional body for statisticians and other data professionals in the UK and internationally. The Society has over 10,000 members in the UK and across the world, around 70% being UK based. We champion the key role of statistics and data in society, and work to ensure that policy formulation and decision making are informed by evidence for the public good. Our work is both UK wide and international.

2.1.2 We have a keen interest in Official Statistics. We interact frequently with the UK Statistics Authority, the Office for Statistics Regulation, the Office for National Statistics and other statistical producing bodies. The measurement of inflation has been a particular concern of the Society since 2010.

2.1.3 Our comments, which, as mentioned, refer to question 1c only, concern the suitability of different measures of inflation for this role on the assumption that it is desired to charge interest linked to a rate of inflation broadly reflective of that experienced by the population as a whole. (Whether it is desirable for interest to be charged and what the interest should reflect are not questions for the RSS.)

3 Key points

3.1.1 A clear advantage in using some index relating to consumer prices[1] (such as RPI, CPI etc) is that because of their widespread use in contracts they are not revised (even if an error is subsequently discovered). A series that is potentially revisable can cause obvious practical problems if calculations are done on the basis of an initial figure which subsequently changes.

[1] A problem when writing on this topic is that the words "consumer price index" refer both to the generic category of such indices and specifically to one series, the Consumer Price Index (CPI). In this note we use lower case letters to refer to these types of indices as a whole and initial capitals when referring to the CPI itself.

This is a major, although not the only, reason we have not considered other inflation indicators such as earnings, the GDP deflator or producer price indices.

3.1.2 We do not consider that the Retail Prices Index (RPI) is currently a suitable index to use. While not all the criticisms levelled at it are, in our view, justifiable, we do believe that it has overestimated inflation since at least 2010. We recommend either the Consumer Price Index (CPI) or the Consumer Price Index including Owner Occupied Housing (CPIH). The Household Costs Indices (HCIs), the other family of consumer price inflation, could provide a candidate in the future but they are not yet fully developed and have not yet gained accredited status.

3.1.3 While either CPI or CPIH would be suitable, CPIH has one advantage. It is the intention of the UK Statistics Authority and the Office for National Statistics to change the way the RPI is calculated to CPIH methodology from 2030; as explained below there are constraints which would hamper changes before then. Once the transitional period has been completed, both the new RPI and CPIH should provide identical measures of inflation. Switching to CPIH would therefore simply anticipate by a few years what would happen anyway but it would remove the current overestimation.

3.1.4 The following paragraphs comment on each of the indices and explain our reasoning in more depth. Meanwhile the following table compares the increase in each index between 2012, when we understand Plan 2 Student loans started to be applicable, and 2025:

% Increase in index between 2012 and 2025	
RPI	65.9
CPI	44.0
CPIH	43.8
HCI	48.5

3.1.5 Not all the differences in the data shown are due to the RPI overestimating inflation but we consider a substantial part of the difference is. Different treatment of owner occupier housing costs, arguably the most contentious issue in consumer price methodology, is another factor. There are also respectable arguments that both CPI and CPIH may underestimate inflation to some extent but in our view any such reduction would be small compared to the likely overestimate by the RPI.

4 The Retail Prices Index (RPI)

4.1.1 Until the late 1990s the RPI and its derivatives such as RPIX (RPI excluding mortgage interest payments) were the only series in the UK looking at consumer price inflation. Initially designed in the 1950s, with wage bargaining primarily in mind, the use of RPI quickly spread to a range of other purposes. Today its use remains widespread in many contracts, notably including many defined-benefit pension schemes and index-linked gilts.

4.1.2 Until 2010 it gave respectable estimates of inflation. It provided higher estimates of inflation than the Consumer Price Index (CPI) – the difference being around 0.5 percentage points a

year on average – but it is debatable which index was better. In particular the CPI did not – and still does not – include most owner occupier housing costs.

4.1.3 Because its original design emphasised its use in wage bargaining it was “household” focused. Some of its features, such as the exclusion of the top 4% of households by income and pensioners mainly dependent on state benefits, for which some criticise it, merely reflect its original purpose.

4.1.4 In 2010 changes were made to clothing price collection, intended to correct an underestimation of clothing inflation in the CPI. They achieved that, but the statisticians did not anticipate that one change, in particular, would interact badly with a formula used at the initial stage of aggregation in the RPI and result in the RPI providing overly high estimates of inflation. Disastrously, the change was considered so minor that it was not tested before implementation. The average gap between the inflation rate shown by the two indices due to this factor widened to nearly one percentage point (although it is currently lower than this) and it became clear that it was the RPI which was badly affected. The details of why this happened are technical but are covered in the appendix to this submission.

4.1.5 The change became more significant when, also in 2010, the Government switched the uprating of public sector pensions and benefits from RPI to CPI. The differences began to affect both government finances and people's incomes. The ONS, unwilling to reverse the 2010 changes since they had improved CPI measurement, tested alternatives but felt none of them helped. In 2013 the RPI lost its National Statistic (Accredited) status — the kitemark indicating certain quality standards. Even so, it remained widely used.

4.1.6 Underlying the issue was a decision the Government made in 1981, when it introduced index-linked gilts which were – and are – linked to the RPI. To reassure investors that RPI would not be manipulated to their disadvantage, the Government added a protection clause to the prospectuses. It said that if RPI calculation ever changed in a way the Bank of England judged both “fundamental” and “materially detrimental” to investors, those investors could demand to be repaid immediately – which could potentially cause a financing crisis for the Treasury.

4.1.7 This clause was included in every index-linked gilt issued until 2002. It was reinforced by the Statistics and Registration Service Act 2007, which made clear that while pre-2002 gilts remained outstanding, any such change required the consent of the Chancellor of the Exchequer. Because the last gilt with this clause does not mature until 2030, ONS’s hands are tied until then. A “fundamental” change which increases RPI inflation is permissible – a “fundamental” one which decreases RPI inflation is not.

4.1.8 In 2019, the National Statistician and the UK Statistics Authority Board announced that once the constraint no longer applied in 2030[2], the RPI would be calculated in the same way as CPIH – the CPI plus a measure of owner-occupiers' housing costs and council tax. The

[2] The then Chancellor refused to allow the change to be made before 2030.

proposal was (and is) not universally supported, as it will change the nature of the RPI, but it has survived a legal challenge from the trustees of some major pension funds.

5 The Consumer Price Index (CPI) and The Consumer Price Index including Owner Occupied Housing (CPIH)

5.1.1 The CPI started life as (and indeed in practice still is) the EU Harmonised Index of Consumer Prices (HICP) for the UK. HICPs were developed in the 1990s following the Maastricht Treaty. A comparable set of consumer price indices were needed for one of the tests established by the Treaty that candidate countries for the Euro had to meet.

5.1.2 In 2003 the Chancellor of the Exchequer decided that the HICP for the UK should be used as the target index for the Bank of England. The National Statistician of the time decided that it should be renamed the Consumer Price index.

5.1.3 HICPs were intended for international comparisons and "macroeconomic" purposes such as providing the target for interest rate decisions. The initial Regulation introducing them made clear that they were not intended to be used for national and microeconomic purposes.[3] Nevertheless, while CPI is, in our view, therefore not an ideal index to use for purposes such as uprating benefits and pensions, that is where there is a need to tie the uprating to households' experience of inflation, there is no reason why it should not be used for uprating in other circumstances when appropriate. In the case of student loans a more general indicator of inflation is, presumably, needed and CPI is adequate for this.

5.1.4 As mentioned above, CPI, like HICPs for other countries, does not yet include a comprehensive indicator of owner occupier housing costs. Eurostat has been seeking a way to rectify this since they were introduced but there proved to be practical difficulties in implementing the originally preferred method.

5.1.5 In 2009 it was decided that the UK would seek to develop its own version of the HICP/CPI including owner occupier costs. ONS and its then Advisory Panel started work to research and decide on a suitable method to capture these costs. They finally decided to use rental equivalence which assumes that the costs to owner occupiers can be proxied by the rent paid on comparable properties. This was not universally accepted as the best method but it is fair to say that all potential methods have disadvantages. A particular point is that this approach means that rents have a very large weight in CPIH – often over 20% – so the index is vulnerable to any problem with the rents series. Arguably there were weaknesses in the rents series used prior to March 2024 when an improved rental survey was introduced.

[3] "*Whereas there is a need for the Community and particularly its fiscal and monetary authorities to have regular and timely consumer price indices for the purpose of providing comparisons of inflation in the macro-economic and international context as distinct from indices for national and micro-economic purposes.*" Preamble to Council Regulation (EC) No 2494/95 of 23 October 1995 concerning harmonized indices of consumer prices

5.1.6 Thus CPIH was born. The ONS uses it as its flagship consumer price index but so far it appears to be little used elsewhere and is rarely commented on in the media. This is likely to change as 2030 approaches due to the planned change in RPI.

5.1.7 While neither CPI nor CPIH are perfect, we consider that they are both of sufficient quality to be used in the calculation of interest on student loans with CPIH having the advantage of being the direction of travel due to the planned alignment with RPI.

6 The Household Costs Indices (HCIs)

6.1.1 Although these have not yet been sufficiently developed to use in this context we include them for completeness and since, as "household" rather than "macroeconomic" indices they are in many ways the natural heir to the RPI. They are intended to measure inflation as close as possible to how households experience it practically. They are also calculated for different groups of households: currently households by income deciles; by housing tenure; working age vs retired; and households with and without children.

6.1.2 HCIs use "democratic" weighting in which each household has the same weight. In contrast, CPI and CPIH are weighted by money spent so give more weight to higher-spending, normally richer, households. HCIs include mortgage interest payments and give full weight to insurance premiums. They also include student loan repayments – although this might give some unwelcome circularity should they ever be considered for this role in the future, possibly making them unsuitable for this purpose.

7 Appendix – What happened in 2010

7.1.1 While many of the procedures for calculating the RPI and the CPI/CPIH are similar, a major difference was (and is) due to the use of different mathematical formulae at the initial stages of aggregation. Compiling consumer price indices is a hierarchical process in which, to take an example, prices for individual apples are first combined into an index for apples; that index is combined with those for oranges, bananas etc to make an index for fruit; that is then combined into an index for food and so forth. Much of the calculation is similar for all indices but that for the RPI and CPI/CPIH differs at the initial stages of aggregation (in this case the index for apples) in cases where weights are not available.

7.1.2 CPI and CPIH mainly use a geometric mean[4] (Jevons) while the RPI uses arithmetic means (Carli and Dutot). While the Dutot and the Jevons normally give broadly similar results, it can be shown mathematically that the Carli will always give equal or higher inflation rates than Jevons. The difference increases as the variability between the different prices to be averaged increases.

[4] A geometric mean of n items multiplies the items together and then takes the nth root. For two items this would therefore be the square root, for three the cube root and so on. The arithmetic mean adds all the n items and divides by n.

7.1.3 Carli is the arithmetic average of price "relatives". The relative is the price in the month to be measured divided by the price in the base month for the year which, in the UK, is January[5].

7.1.4 Both arithmetic and geometric means can have disadvantages, Arithmetic means can be overly influenced by high values so will give values which look overly high when there is a lot of variability between items. Geometric means cannot be used if any price is zero (eg offered for free if another item is purchased; car parking can sometimes be free) and will be overly influenced by any price which is extremely low.

7.1.5 Clothing can be a difficult item to measure for price indices due to the behaviour of "fashion" goods. These are normally introduced to the market at full price but if they do not sell will be discounted, often sharply, and then discounted again sometimes ending at extremely low prices.

7.1.6 Towards the end of the first decade of this century, it was noticed that the CPI series for clothing showed a decline in prices where other European countries showed a rise or a broadly level series. To correct this underestimation, the ONS introduced a number of changes to the price collection guidelines for clothing. In particular, one of these changes increased the number of items on sale that were collected in January. This meant that prices collected in January had a greater range of variability than before. Since January is the base month this resulted in a huge range of price relatives for clothing. The arithmetic properties of Carli therefore resulted in overly high results for clothing and this in turn meant that the RPI started to give clear overestimation of overall inflation while the underestimation of clothing inflation in the CPI appeared cured.

7.1.7 As mentioned, the changes were not tested before implementation. Attempts by the ONS to make further changes to clothing collection to remedy the RPI issue came to nothing (at least in ONS eyes) and in any case changes were hampered by the constraints resulting from the provisions in index-linked gilts.

[5] There are two versions of Carli, the direct and the chained. In the direct version, as used in the UK, the price relative for, for example March, is the ratio of the price for March of the item to its price in January. In the chained version the price relative for March is the ratio of the price for March divided by the price for February multiplied by the ratio of the price for February divided by the price for January. This latter version has the property that if prices rose in February but returned in March to the January level it would show a false rise between January and March. Some people confuse the two and wrongly attribute this defect to the direct version as used in the UK.