

Article

Alternative measures of UK households' income and saving: September 2016

Experimental Statistics on the impact of removing "imputed" transactions from real household disposable income and the saving ratio to better represent the economic experience of UK households.

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1 . Introduction

This article provides an update to data for the experimental [Alternative measures of real households disposable income and the saving ratio: June 2016](#) that was published on 14 July 2016. These data estimate disposable income less the transactions that are imputed and unobserved by households.

This article compares experimental cash-based measures of real households disposable income and the saving ratio with the internationally comparable National Accounts defined methodology as published in the Quarterly National Accounts and [Quarterly Sector Accounts](#).

The data within this article are consistent with the Quarterly National Accounts published on 30 September 2016.

2 . Real households disposable income (RHDI)

2.1. What is real households disposable income?

There are 2 measures of households and non-profit institutions serving households (NPISH) disposable income, in real terms or in current prices (these are sometimes known as nominal prices, where the effects of price changes have not been removed).

Gross disposable income (GDI) for households is the estimate of the total amount of income that households and NPISH have available from wages received, income of the self-employed, social benefits and net property income (income from financial assets, such as net interest on savings and dividends from shares) less taxes on income and wealth. All the components that make up GDI are estimated in current prices.

However, by adjusting GDI to remove the effects of price inflation, we are able to estimate another useful measure of disposable income called real households disposable income (RHDI). This is a measure of the real purchasing power of households and NPISH incomes, in terms of the quantity of goods and services they would be able to purchase. We use the households and NPISH expenditure implied deflator (an index of households and NPISH inflation which is used to calculate real households and NPISH spending) to remove the effects of price inflation.

We publish a measure of RHDI within the [Quarterly Sector Accounts](#) bulletin.

2.2. Making adjustments to RHDI

The measure of real households disposable income published within the Quarterly Sector Accounts contains elements which, despite being required for compiling a sequence of National Accounts, are not directly observed by households.

For example, imputed rentals represent the value of housing services that owner-occupiers derive from their homes. This is the amount that they would have to pay in rental to achieve the same consumption of housing services. Whilst this concept is important when measuring economic output, it is not expenditure (and income) directly observed by homeowners. As a result, the National Accounts measure of RHDI can differ from the perceived experience of households.

We therefore consider “cash RHDl”. This measure removes imputed rentals and other imputed transactions resulting in a measure of RHDl that is a closer representation of disposable income as measured by social surveys. This is mainly achieved by following guidance within the [Organisation for Economic Co-operation and Development Framework for Statistics on the Distribution of Households Income, Consumption and Wealth](#) and the [United Nations Economic Commission for Europe \(UNECE\) Canberra Group Handbook on Household Income Statistics](#).

For a full list of those transactions that have been excluded from the cash measure please see Annex A.

2.3. National Accounts RHDl compared to cash RHDl

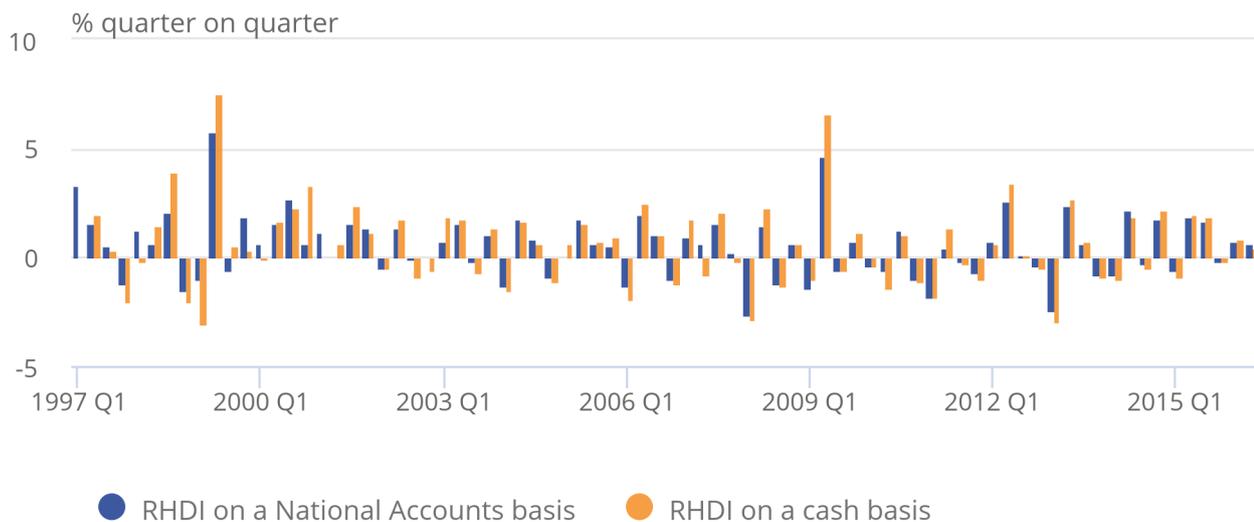
Real households disposable income on a National Accounts basis increased by 0.6% in Quarter 2 (Apr to June) 2016, following an increase of 0.8% in Quarter 1 (Jan to Mar) 2016. On a cash basis, real households disposable income increased by 0.4% in Quarter 2 2016, following an increase of 0.9% in Quarter 1 2016.

Figure 1: National Accounts RHDl and Cash RHDl, percentage change quarter on quarter

UK, Quarter 1 (Jan to Mar) 1997 to Quarter 2 (Apr to June) 2016

Figure 1: National Accounts RHDl and Cash RHDl, percentage change quarter on quarter

UK, Quarter 1 (Jan to Mar) 1997 to Quarter 2 (Apr to June) 2016



Source: Office for National Statistics

Notes:

1. Q1 = Quarter 1 (Jan to Mar), Q2 = Quarter 2 (Apr to June), Q3 = Quarter 3 (July to Sept) and Q4 = Quarter 4 (Oct to Dec).

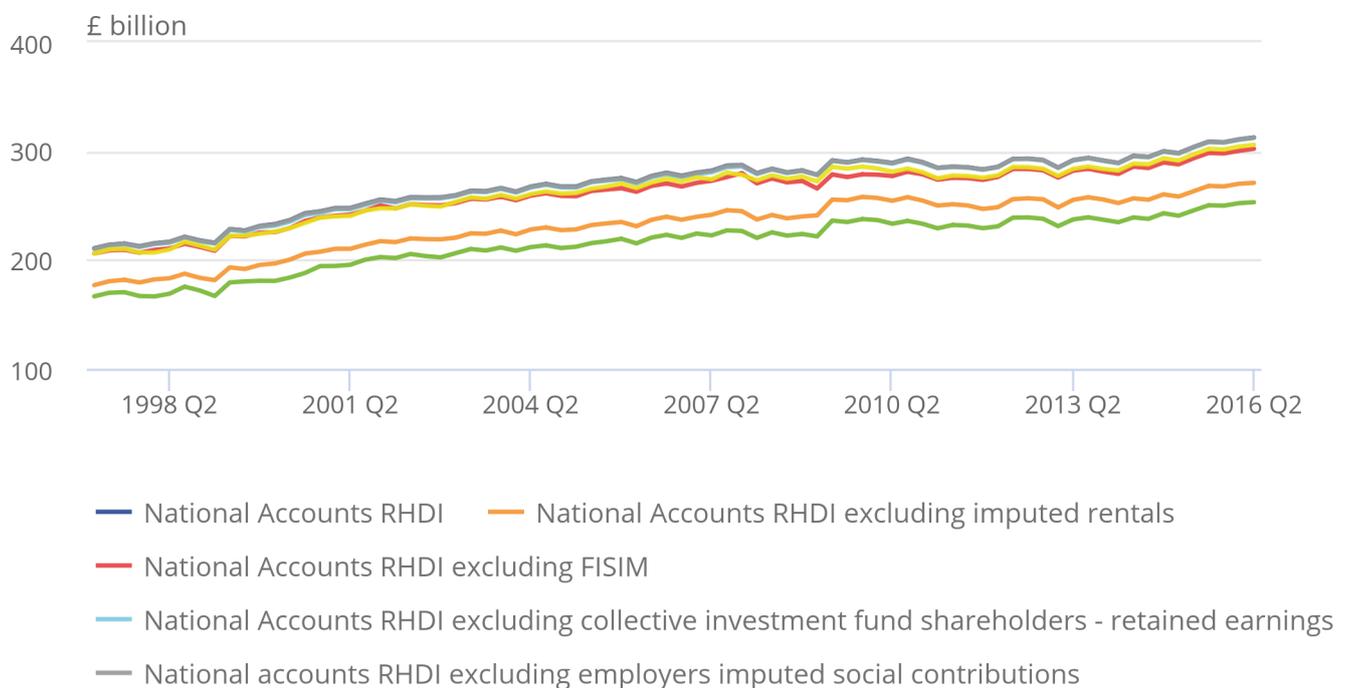
There are relatively small differences between the quarterly growths of RHDl on a national accounts basis and a cash basis, but the differences between the levels of the 2 series between Quarter 1 1997 and Quarter 2 2016 range from £44.1 billion to £60.6 billion each quarter. The difference in levels reflects the removal of imputed transactions. The removal of imputed rentals from RHDl on a National Accounts basis has the largest impact, whilst the removal of employers' imputed social contributions has the smallest impact on RHDl on a National Accounts basis.

Figure 2: Impacts of removing the imputed components from the National Accounts measure of RHDl to derive the cash basis measure

UK, Quarter 1 (Jan to Mar) 1997 to Quarter 2 (Apr to June) 2016

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1. Q1 = Quarter 1 (Jan to Mar), Q2 = Quarter 2 (Apr to June), Q3 = Quarter 3 (July to Sept) and Q4 = Quarter 4 (Oct to Dec).

3 . Households and non-profit institutions serving households (NPISH) saving ratio

3.1. What is the saving ratio?

The saving ratio estimates the amount of money households and non-profit institutions serving households (NPISH) have available to save (known as gross saving) as a percentage of their total disposable income (known as total available resources).

Gross saving is the difference between households and NPISH total available resources (mainly wages received, revenue of the self-employed, social benefits and net property income, such as interest on savings and dividends from shares, less taxes on income and wealth) and their current consumption (expenditure on goods and services).

All of the components that make up gross saving and total available resources are estimated in current prices.

The households and NPISH saving ratio is published in the [Quarterly Sector Accounts](#) bulletin.

3.2. Making adjustments to the saving ratio

There are additional adjustments required to calculate the saving ratio on the same “cash” basis as the RHDI. Firstly, the adjustment for the change in pension entitlements is removed from the use of disposable income account. Secondly, imputed rentals of owner occupiers and charges for financial intermediation services indirectly measured (FISIM) are removed from households and NPISH final consumption expenditure (see Annex A).

3.3. The National Accounts saving ratio and the cash saving ratio both fell in Quarter 2 (Apr to June) 2016

The saving ratio on a National Accounts basis fell to 5.1% in Quarter 2 (Apr to June) 2016 from 5.6% in Quarter 1 (Jan to Mar) 2016. On a cash basis, the saving ratio fell to 0.5% in Quarter 2 2016 from 1.0% in Quarter 1 2016.

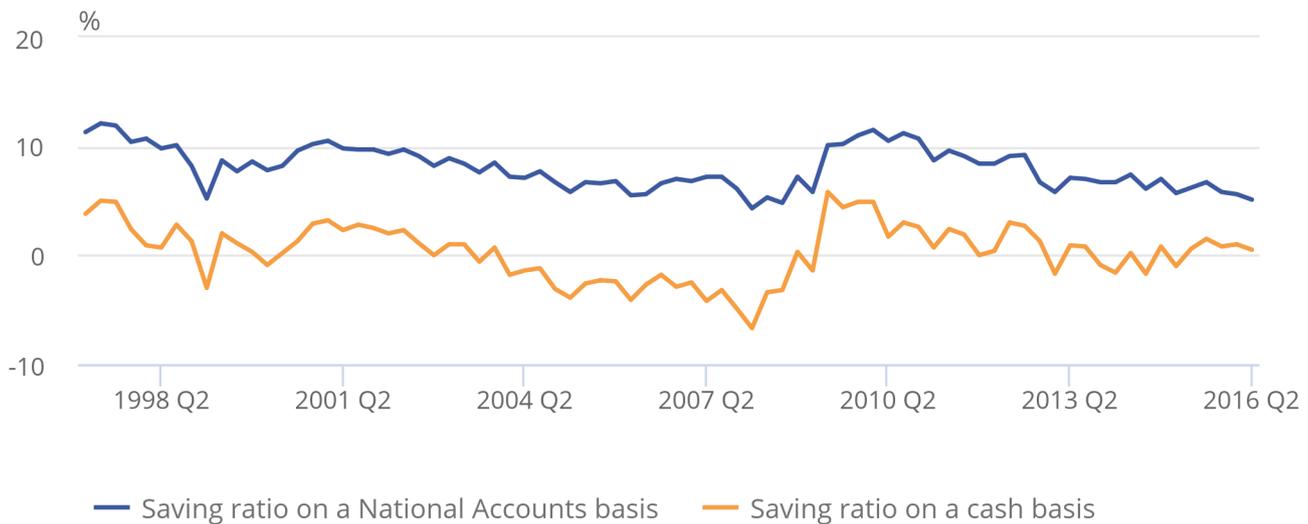
The removal of imputed rentals and FISIM from final consumption expenditure on a cash basis were the main driver of the difference between gross saving on a National Accounts basis and a cash basis in Quarter 2 2016.

Figure 3: National Accounts saving ratio and cash saving ratio, quarter on quarter

UK, Quarter 1 (Jan to Mar) 1997 to Quarter 2 (Apr to June) 2016

Figure 3: National Accounts saving ratio and cash saving ratio, quarter on quarter

UK, Quarter 1 (Jan to Mar) 1997 to Quarter 2 (Apr to June) 2016



Source: Office for National Statistics

Notes:

1. Q1 = Quarter 1 (Jan to Mar), Q2 = Quarter 2 (Apr to June), Q3 = Quarter 3 (July to Sept) and Q4 = Quarter 4 (Oct to Dec).

3.4. The cash saving ratio rose more sharply than the National Accounts saving ratio in early 2015

In recent quarters, the saving ratio on a National Accounts basis has followed a broadly similar trend to the cash saving ratio although there are differences in the extent to which the saving ratios have grown in each quarter.

The saving ratio on a cash basis rose more sharply than the National Accounts saving ratio between Quarter 1 2015 and Quarter 3 2015. On a cash basis, the saving ratio rose from negative 1.0% in Quarter 1 2015 to 1.5% in Quarter 3 (July to Sept) 2015; on a National Accounts basis, the saving ratio rose from 5.7% in Quarter 1 2015 to 6.7% in Quarter 3 2015.

The sharper rise in the cash saving ratio than the National Accounts saving ratio between Quarter 1 2015 and Quarter 3 2015 was largely driven by the difference in how the 2 series treat social benefits other than transfers in kind received by households and non-profit institutions serving households (NPISH). This series grew by £4.8 billion between Quarter 1 2015 and Quarter 3 2015. On a cash basis this, along with changes to other transactions, caused an increase in total available resources of £9.7 billion, which was partially offset by a £3.5 billion increase in final consumption expenditure (excluding imputed transactions) over the same period. The overall effect was to increase gross saving by £6.3 billion.

On a National Accounts basis this increase in social benefits other than transfers in kind does not feed through into total available resources as it is offset by the adjustment for the change in pension entitlements, an adjustment that is not included in the cash measure.

Therefore, between Quarter 1 2015 and Quarter 3 2015, the increase in total available resources was £1.6 billion lower on a National Accounts basis than on a cash basis.

On a National Accounts basis, between Quarter 1 2015 and Quarter 3 2015, an increase in total available resources of £8.2 billion was partially offset by an increase in final consumption expenditure of £4.5 billion. The meant that gross saving increased by £3.7 billion, £2.6 billion less than on a cash basis.

3.5. The cash saving ratio was revised for Quarter 1 2016

Revisions in this bulletin are made in line with the [National Accounts revisions policy](#). The earliest period open for revision in this release is Quarter 1 (Jan to Mar) 2015.

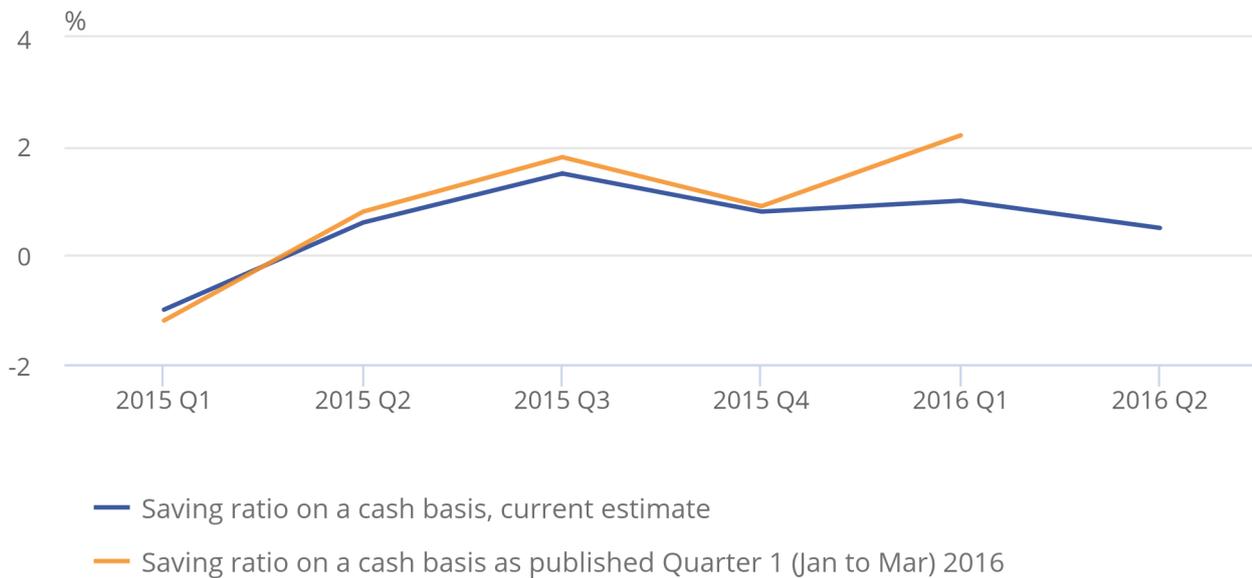
Since the publication of [Alternative measures of real households disposable income and the saving ratio: June 2016](#) there have been revisions to the cash saving ratio from Quarter 1 2015. There were small revisions to the cash saving ratio between Quarter 1 2015 and Quarter 4 (Oct to Dec) 2015. In Quarter 1 2016, the cash saving ratio was revised down to 1.0% from 2.2%. This was largely driven by a downward revision to social benefits other than transfers in kind (which largely comprises of payments made to households from pension funds) of £4.7 billion, partially offset by an upward revision to wages and salaries of £0.9 billion.

Figure 4: Current and previously published estimates of the saving ratio on a cash basis

UK, Quarter 1 (Jan to Mar) 2015 to Quarter 2 (Apr to June) 2016

Figure 4: Current and previously published estimates of the saving ratio on a cash basis

UK, Quarter 1 (Jan to Mar) 2015 to Quarter 2 (Apr to June) 2016



Source: Office for National Statistics

Notes:

1. Q1 = Quarter 1 (Jan to Mar), Q2 = Quarter 2 (Apr to June), Q3 = Quarter 3 (July to Sept) and Q4 = Quarter 4 (Oct to Dec).

4 . Annex A

Transactions that feature in the calculation of gross disposable income and the saving ratio

To calculate gross disposable income we have to work through the first 2 accounts of the households and NPISH sector, adding up all the resources and subtracting all the uses in each of the accounts.

The transactions in grey in the tables have been excluded from the calculations of cash RHD1 and the cash saving ratio in line with the [OECD Framework for Statistics on the Distribution of Household Income, Consumption and Wealth](#).

Allocation of primary income account

Resources		Uses	
Transaction	Code	Transaction	Code
Gross operating surplus	B.2g	Interest before FISIM allocation	D.41g
Gross mixed income	B.3g	(less) FISIM	P.119
Wages and salaries	D.11	Rent	D.45
Employers' social contributions	D.12		
Interest before FISIM allocation	D.41g		
(plus) FISIM	P.119		
Dividends	D.421		
Withdrawals of income from quasi-corporations	D.422		
Earnings on property income	D.423		
Income attributable to insurance policy holders	D.441		
Income payable on pension entitlements	D.442		
Collective investment fund shareholders – Dividends	D.4431		
Collective investment fund shareholders – Retained earnings	D.4432		
Rent	D.45		
Is carried over to the next account →		Balance of gross primary income	B.5g

Secondary distribution of income account

Resources		Uses	
Transaction	Code	Transaction	Code
Balance of gross primary income	B.5g	Taxes on income	D.51
Employers' imputed social contributions	D.612	Other current taxes	D.59
Social security benefits in cash	D.621	Employers' actual social contributions	D.611
Other social insurance benefits	D.622	Employers' imputed social contributions	D.612
Social assistance benefits in cash	D.623	Households' actual social contributions	D.613
Non-life insurance claims	D.72	Households' social contribution supplements	D.614
Miscellaneous current transfers	D.75	Social insurance scheme service charge	D.61SC
		Other social insurance benefits	D.622
		Social assistance benefits in cash	D.623
		Net non-life insurance premiums	D.71
		Miscellaneous current transfers	D.75
		Gross disposable income	B.6g

Use of disposable income account

Resources		Uses	
Transaction	Code	Transaction	Code
Gross disposable income	B.6g	Individual consumption expenditure excluding FISIM and imputed rental	P.31
Adjustments for the changes to pensions	D.8		
		Gross saving	B.8g

For more information on all of these transactions, please see the [European System of Accounts 2010](#).

Adjustments to transactions that calculate Real Household Disposable Income

Allocation of primary income account

Gross operating surplus (B.2g) – This is comprised almost entirely of imputed rental, a National Accounts concept that estimates the value to owner-occupiers of living in their own home. This is not expenditure or income that households would see on a bank statement and is therefore excluded.

Employers' social contributions (D.12) – This refers to the contributions made by employers towards social insurance schemes held by their employees. This is excluded as it is not seen by households until they draw their pension, which falls under a separate transaction.

FISIM resource and use (P.119) – FISIM, or financial intermediation services indirectly measured, refers to charges made by financial corporations acting as intermediaries that are implicitly included in the interest rates offered on loans and savings. Within the National Accounts FISIM adjustments are made to return these implicit charges back to households, however, as these charges are real, the adjustment is excluded from cash RHDl.

Income payable on pension entitlements (D.442) – This comprises the earnings that arise from the investment of “technical funds” held by pension providers. These earnings are not actually seen by households as they are returned to the pension fund later in the accounts and as such have been excluded from cash RHDl.

Retained earnings attributable to collective investment fund shareholders (D.4432) – This represents the earnings made by collective investment funds that are not paid out as dividends. These are paid to households, such that the investment fund is left with no saving. These retained earnings are then paid back to the investment fund. Again, this is a transfer that households do not directly observe and as such it has been excluded from cash RHDl.

Secondary distribution of income account

Non-life insurance claims (D.72) – This refers to the funds received by households when making claims on non-life insurance policies. Whilst within the System of National Accounts these are treated as current transfers, within social survey sources these sorts of transfers are not normally captured as income and have therefore been excluded from cash RHDl. (See [Canberra Group Handbook](#)).

Employers' actual social contributions (D.611) and employers' imputed social contributions (D.612) – Excluded as these transactions are the use counterparts to D.12, which was excluded above.

Households social contribution supplements (D.614) – Excluded as this is the use counterpart to D.442, which was excluded above.

Additional adjustments to transactions that calculate the saving ratio

Adjustment for the change in pension entitlements (D.8) – This adjustment adds the amount that households have paid into pension schemes net of any payments they have received from these schemes back into the accounts. This is because the contributions that households make to pension schemes are effectively a form of saving whilst the benefits received from these schemes effectively reduce savings. The cash saving ratio excludes this adjustment as it is not something that is directly observed by households.

Households and NPISH individual consumption expenditure (P.31) – To calculate saving, households and NPISH expenditure is deducted from households and NPISH disposable income. To reflect some of the changes made to the measurement of RHDl above, there are also corresponding changes that need to be made to the measurement of households and NPISH expenditure. Imputed rental of owner-occupiers and FISIM are deducted from expenditure as they are not directly observed by households.

5. Background notes

1. Details of the [policy governing the release of new data](#) are available from the [UK Statistics Authority](#).
2. This is an experimental product and we are reviewing the methodology used to produce the cash measures of real household disposable income and saving ratio. We would welcome feedback from users about the future content of the article and publication tables.