Office for National Statistics

Middle Income Households, 1977-2011/12

Coverage: **UK**
Date: **02 December 2013**
Geographical Area: **UK**
Theme: **Economy**
Theme: **People and Places**

Correction

A typographical error in Middle income households, Income of the middle fifth of retired households was identified. The reference to non-retired households in the final paragraph should have been to retired households: Direct tax paid by the middle fifth of non-retired households rose by 15% between 2007/08 and 2011/12, mainly due to an increase in the amount paid in income tax. The original date of publication was 2 December 2013 and was corrected on 17 February 2014.

Key findings

- Growth in UK median household disposable income since 1977 has closely mirrored growth in GDP per person, rising during periods of economic growth and falling after the recessions of the early 1980s, early 1990s and late 2000s.
- Since the start of the economic downturn, median household income for the overall population has fallen by 3.8%, after adjusting for inflation.
- However, when looking separately at non-retired and retired households, the median income for non-retired households fell by 6.4% between 2007/08 and 2011/12, while the median income for retired households grew by 5.1%.
- Between 2007/08 and 2011/12, average income from employment and investments for the middle fifth of non-retired households fell from £37,900 to £32,600.
- Cash benefits for the middle fifth of non-retired households rose from £3,100 to £4,600 between 2007/08 and 2011/12. As a result, the average proportion of gross income coming from cash benefits increased from 7.6% to 12.3% for this group.
- Average direct taxes paid by the middle fifth of non-retired households have fallen from £8,700 in 2007/08 to £6,800 in 2011/12. As a percentage of gross income, this is equivalent to a fall from 21.1% to 18.3%.
- The average amount paid in indirect taxes by the middle fifth of non-retired households also fell between 2007/08 and 2011/12, from £6,400 to £6,000, partly reflecting falling average expenditure. However, as a proportion of gross income, indirect taxes rose from 15.6% to 16.2% over this period, due to gross income falling at a faster rate.

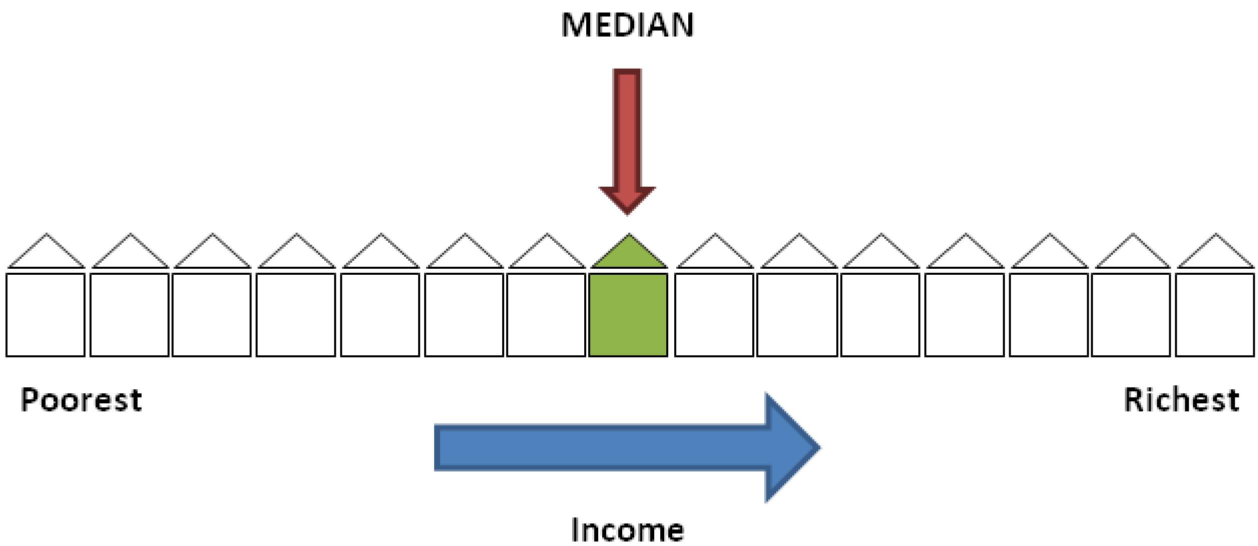
Background: Why look at median household incomes?

Gross Domestic Product (GDP) per person is often used as a measure of a country's standard of living, with higher GDP per person indicating higher living standards. GDP per person, however, was not designed as a measure of individual or national well-being. GDP per person measures total production, income or expenditure in an economy divided by the number of people in the population.

An alternative to GDP per person is to look at the economic position of households. This article compares the two main measures of average household income, the mean and the median.

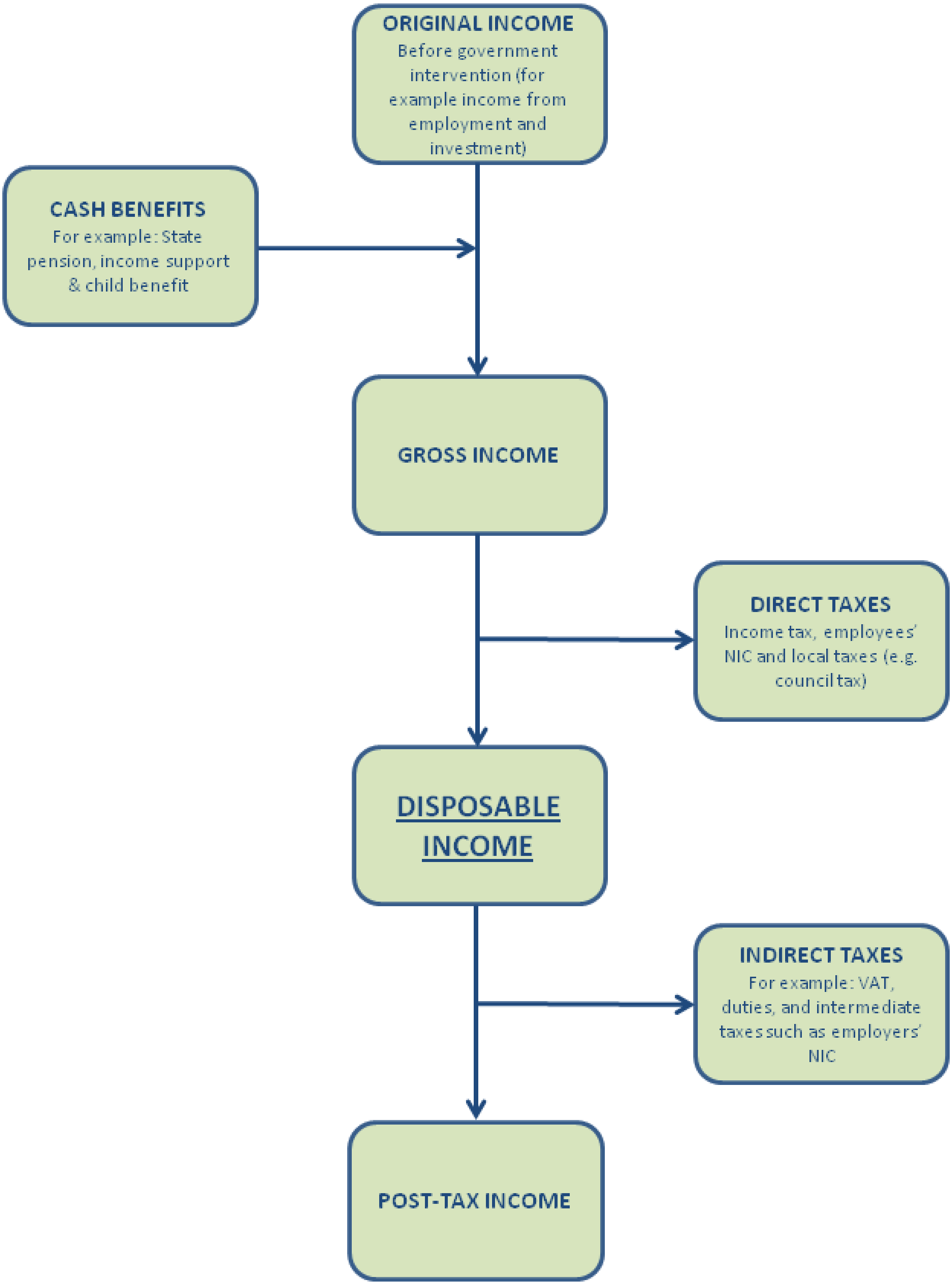
The mean simply divides the total income of households by the number of households. A limitation of using the mean for this purpose is that it can be influenced by just a few households with very high incomes and therefore does not necessarily reflect the standard of living of the "typical" household.

Many researchers argue that growth in median household incomes provides a better measure of how people's well-being has changed over time. The median household income is the income of what would be the middle household, if all households in the UK were sorted in a list from poorest to richest. As it represents the middle of the income distribution, the median household income provides a good indication of the standard of living of the "typical" household in terms of income.

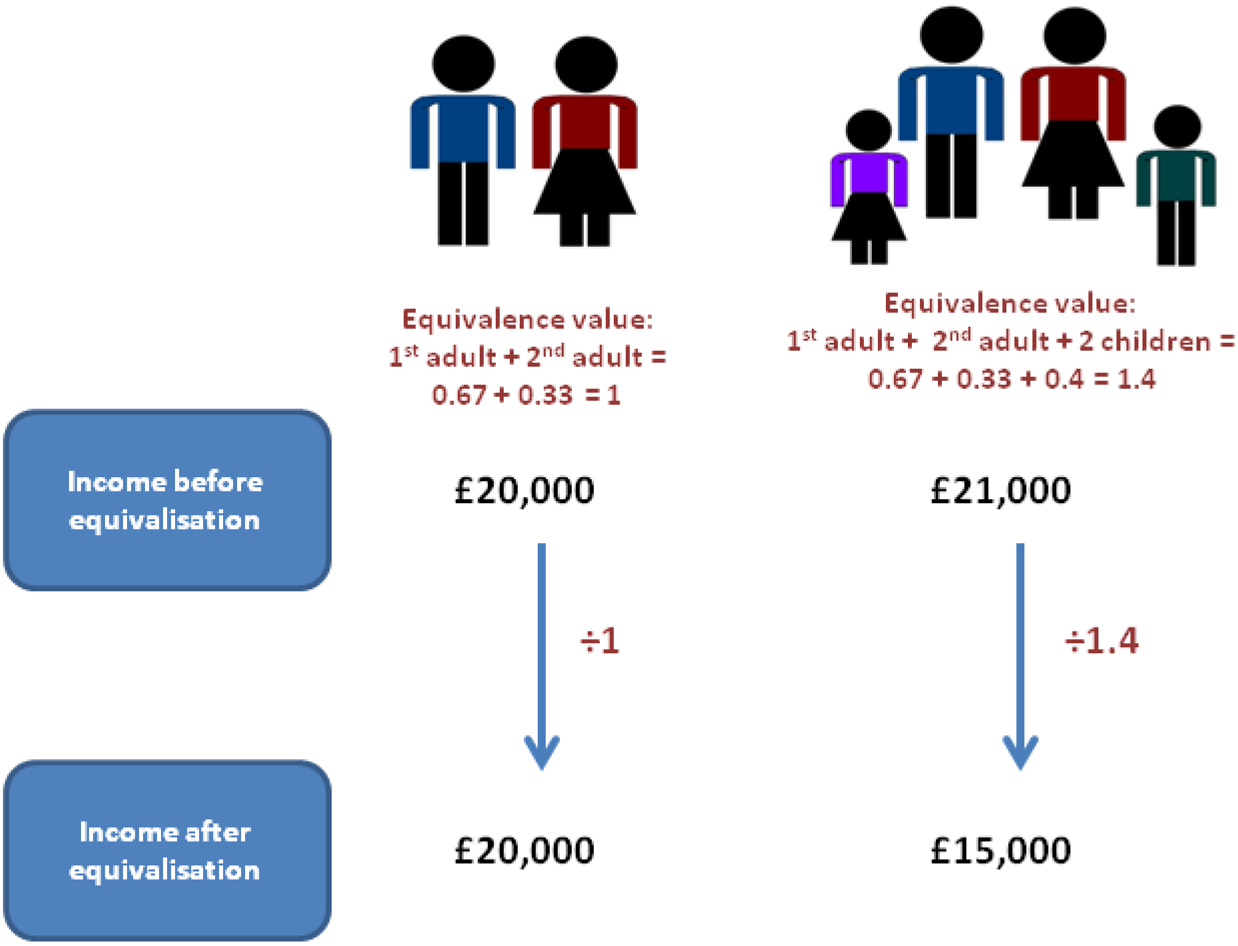


Disposable income and equivalisation

Disposable income is arguably the most widely used household income measure. Disposable income is the amount of money that households have available for spending and saving after direct taxes (such as income tax and council tax) have been accounted for. It includes earnings from employment, private pensions and investments as well as cash benefits provided by the state.



In order to make comparisons over longer periods of time, disposable income is often equivalised. Equivalisation is the process of accounting for the fact that households with many members are likely to need a higher income to achieve the same standard of living as households with fewer members. Equivalisation takes into account the number of people living in the household and their ages, acknowledging that while a household with two people in it will need more money to sustain the same living standards as one with a single person, the two person household is unlikely to need double the income.

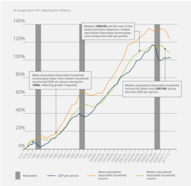


By reporting equivalised disposable income when looking at growth, any changes in average household incomes which might be due solely to the structure of households changing over time are taken into account.

Growth of median household income

Figure 1 shows how UK median and mean household income and Gross Domestic Product per person have grown since 1977, after adjusting for inflation.

Figure 1: Growth of median (and mean) household income and Gross Domestic Product per person



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Median equivalised disposable household income more than doubled between 1977 and 2011/12. In 1977, the median was the equivalent of £11,200 in 2011/12 prices. In 2011/12, median household income was £23,200, having grown at an average rate of 2.2% per year over the intervening period.

Over this same period, mean household income increased more quickly than the median measure, growing at an average annual rate of 2.4% from £12,600 to £28,200. The faster growth of the mean measure was primarily due to incomes of high-income households growing at a faster rate than incomes in the middle and lower parts of the income distribution between 1977 and 1990.

Figure 1 also shows the growth of GDP per person over the same timeframe. Growth in median household income closely mirrors growth in GDP per head for much of this time, rising during periods of economic growth and falling during or immediately after recessions.

There has been a slight divergence between these two measures since the mid 1990s. Between 1995/96 and 2004/05, UK median household income grew at an average rate of 3.7% per year, faster than GDP per person, which grew at 2.9% per year. However, while GDP per person continued to grow at similar rates between 2004/05 and 2007/08, growth of median household income slowed to a fifth of its previous rate in the years immediately before the start of the economic downturn.

The fall in UK median household income since the start of the economic downturn has been smaller than the fall in GDP per person over the same period. Between 2007/08 and 2011/12, median income fell from £24,100 to £23,200, a percentage drop of 3.8%, while over the same period, GDP per person fell by 6.5%.

The impact of the economic downturn on median incomes was delayed relative to the fall in GDP per person. Between 2007/08 and 2009/10, GDP per person fell by 7.7%, while median disposable income changed little. However, between 2009/10 and 2011/12, GDP per person grew by 1.3%, while median household income decreased by 4.1%.

Figure 2: Median equivalised disposable household income by household type

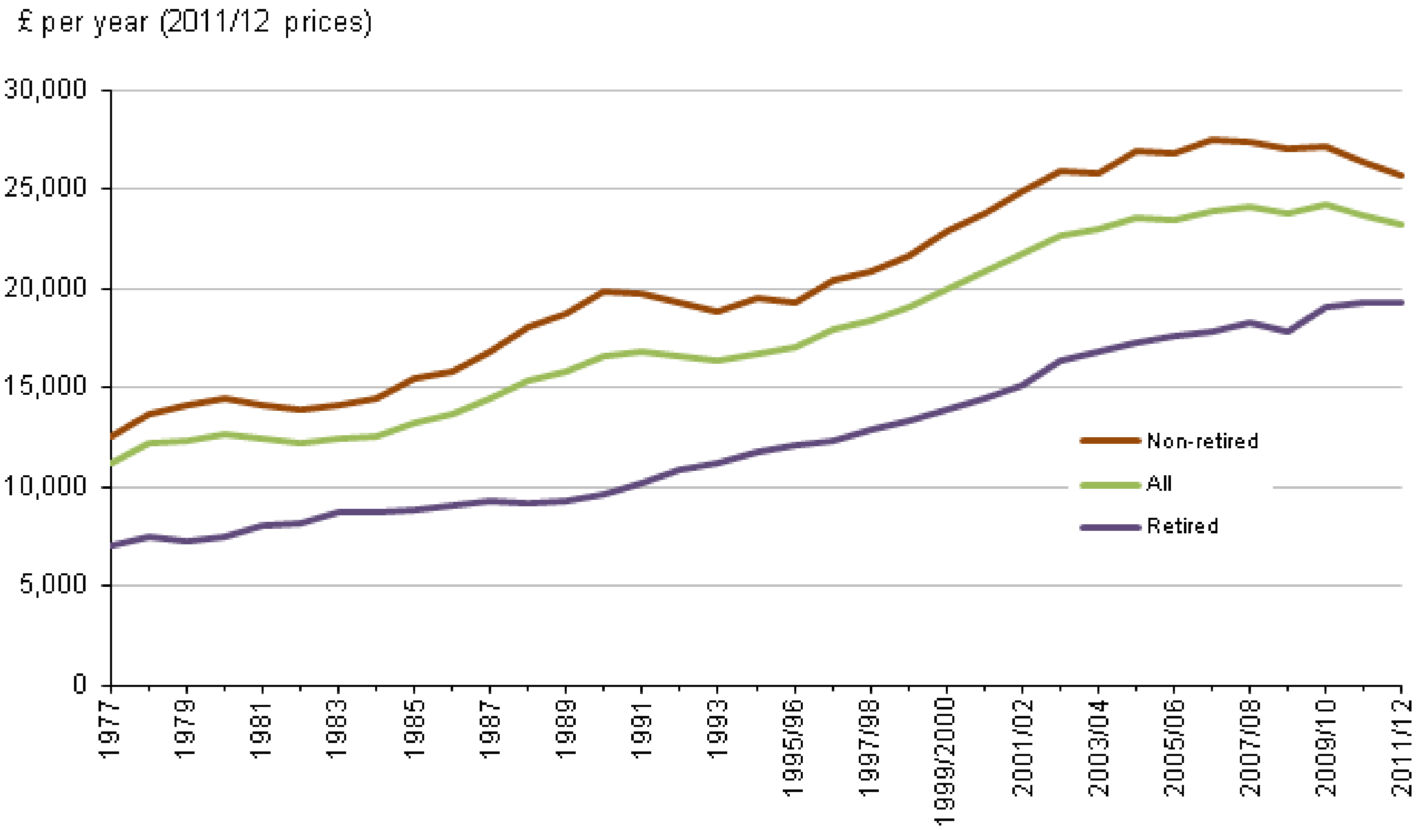

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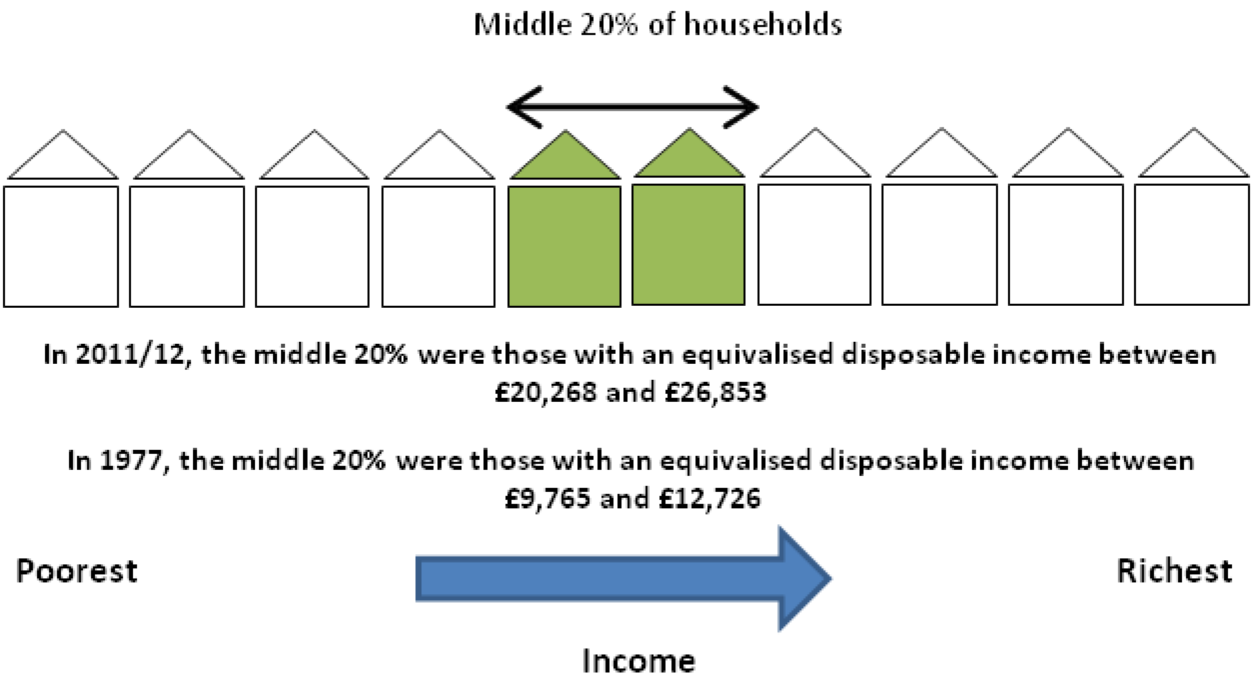
Figure 2 compares growth in the median equivalised disposable income of retired and non-retired households with all households. While the income of retired households remains considerably lower than that of non-retired households, retired households have seen faster income growth over the period covered. After adjusting for inflation, in 1977 the median income of retired households was £7,100 and the median income of non-retired households was £12,600. By 2011/12, the income of retired households had grown 2.7 times to £19,300, while the income of non-retired households doubled from its 1977 level to £25,700.

Figure 2 also shows that since the start of the economic downturn, median retired household income has continued to grow, rising by 5.1% since the start of the economic downturn, while the median income of non-retired households fell 6.4%. The largest driver of the increase in income for retired households over this period was private pensions. Trends in retired households' income are further analysed in the later section on the income of the middle fifth of retired households, as well as in the article:The Income of Retired Households, 1977-2010/11

Sources of Income for Middle Income Households

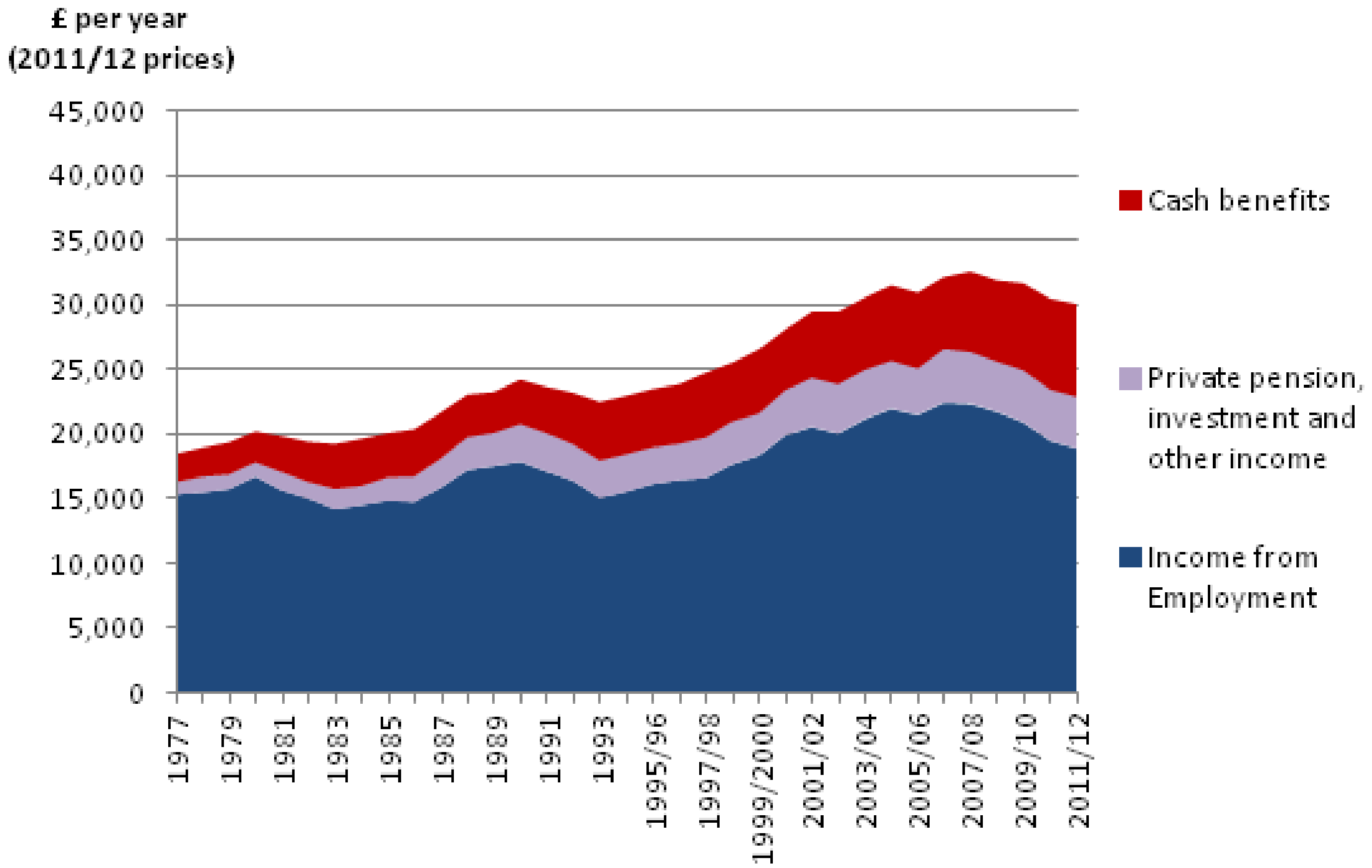
Having examined changes in median income since 1977, the following section of this article goes on to look at “middle income” households and how their income has changed over the same time period.

Because the median represents just a single household at the centre of the income distribution, it cannot be used directly to examine the characteristics of the middle, such as the composition of their income. To carry out such an analysis, one approach is to study “middle income” households – defined as the middle 20% of households in terms of their equivalised disposable income.



This section looks at how middle income households’ income and its composition has changed over time by analysing gross income. A household’s gross income is made up of all its earnings and investment income (including pensions), plus cash benefits received from the state, before any taxes are taken off.

Figure 3: Composition of gross income for the middle income quintile of all households



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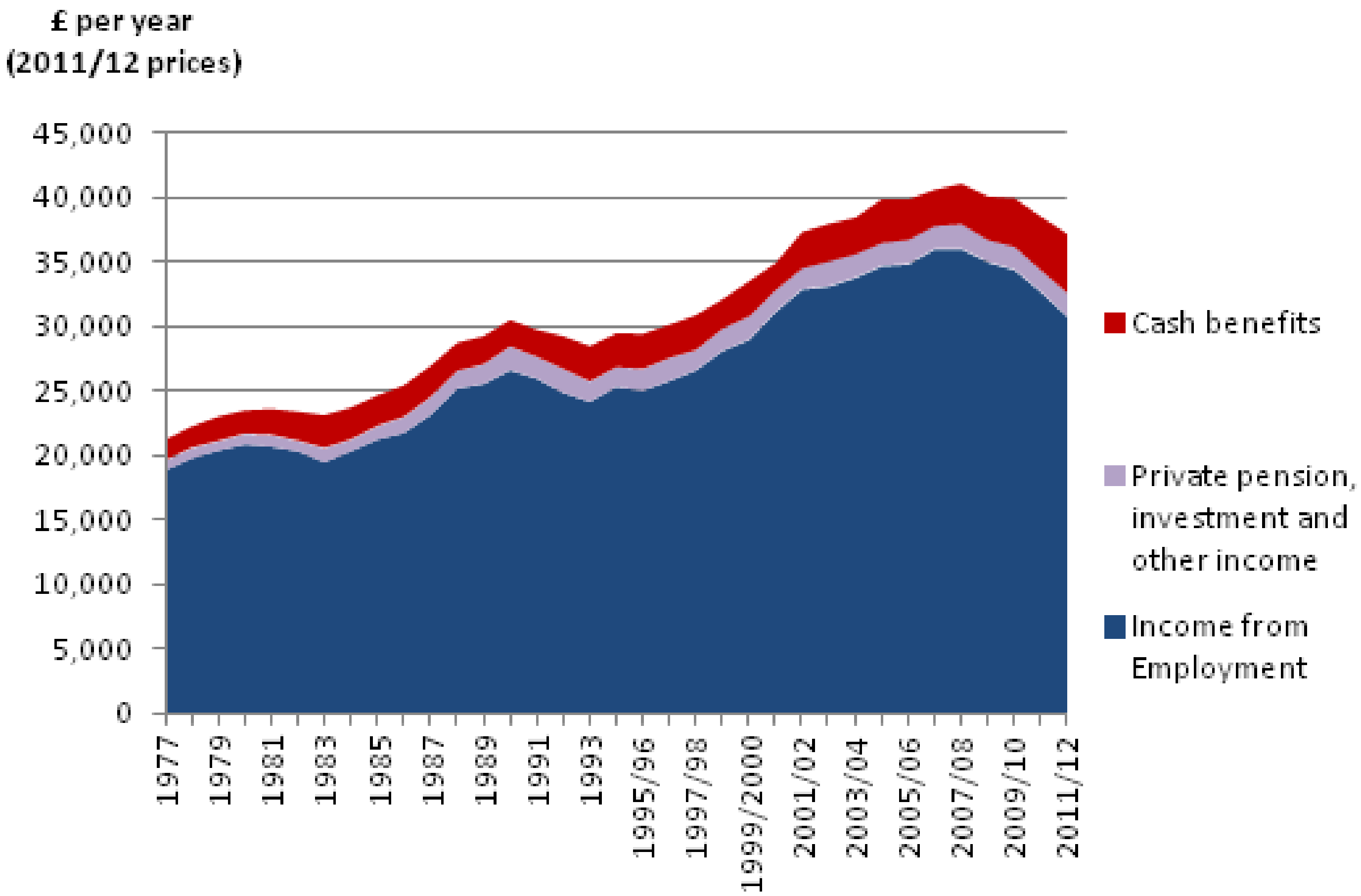
Between 1977 and 2011/12, the middle fifth of households saw an increase in unequivalised gross income from £18,500 to £30,100, after taking inflation into account. Average incomes from employment, private pensions, other investments, and cash benefits have all grown over this period. However, the increase has been largest for cash benefits. As a result, the proportion of income the middle derived from cash benefits grew from 11.9% in 1977 to 23.9% in 2011/12.

Most of this increase in cash benefits has been due to an increase in the proportion of retired households in this middle group, from 9% in 1977 to 31% in 2011/12. This has understandably resulted in a large increase in the proportion of income of this group that is made up by age-related benefits, such as the State Pension.

In order to make a more consistent comparison over time, it is possible to look at the middle fifth of non-retired households only.

Figure 4: Composition of gross income for the middle income quintile of non-retired households



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The gross income of this group grew from £21,200 in 1977 to £37,200 in 2011/12, with an average annual growth rate of 1.7%. However, the rate of income growth, and the make-up of that income, have both varied considerably over this period. Figure 4 shows that, over this period, income from employment and income from investments (including private pensions), which together make up original income, have tended to rise during periods of economic growth and fall during recessions. By contrast, the average amount of cash benefits received by the middle fifth of non-retired households has tended to rise more quickly during periods of recession and low economic growth.

Between 2007/08 and 2011/12 original income, which is the income households get from employment and investments, fell from £37,900 to £32,600, while cash benefits rose from £3,100 to £4,600 over the same period. The fall in original income has mainly been driven by a fall in its largest component, wages and salaries, which fell from £33,100 in 2007/08 to £28,300 in 2011/12.

In contrast, the rise in the cash benefits received by the middle fifth of non-retired households has a number of causes including rises in tax credits, the State Pension and housing benefit.

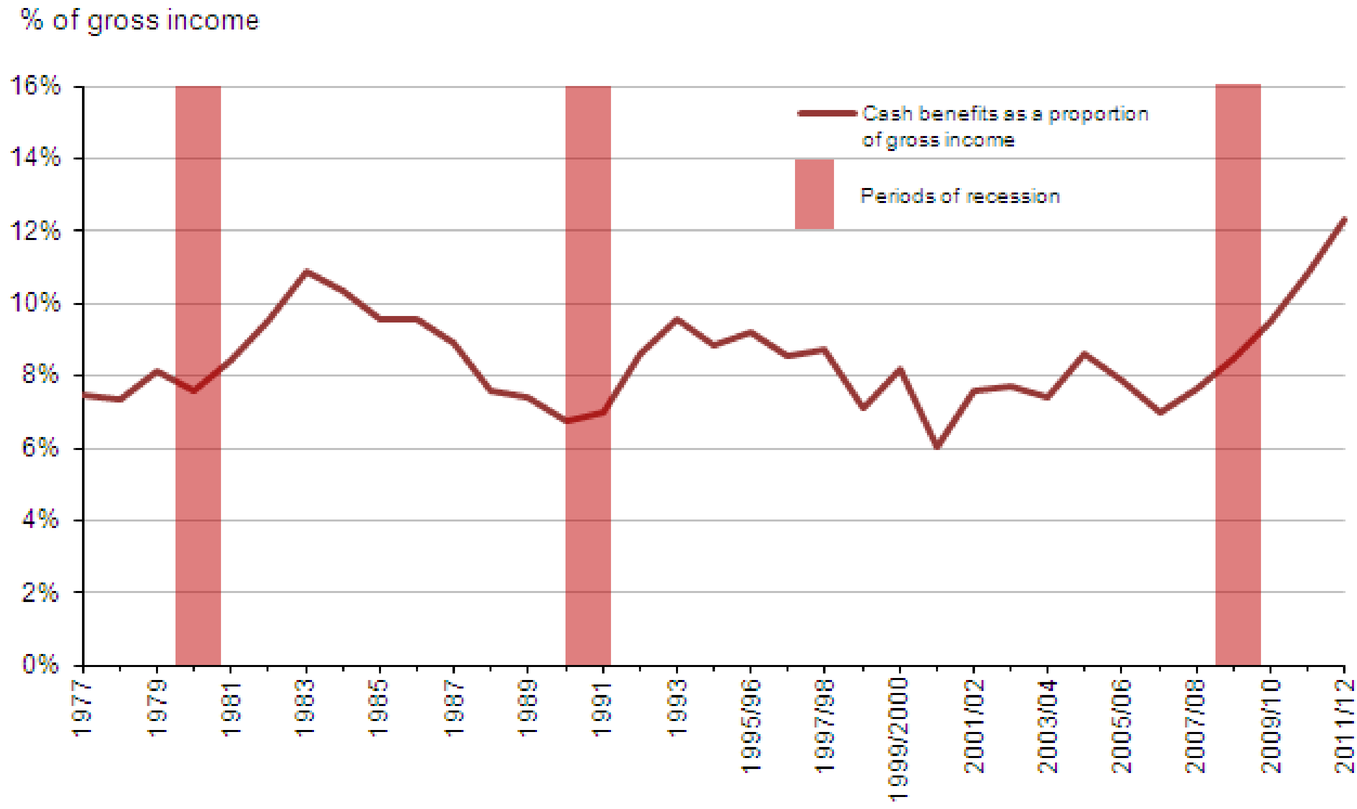
Between 2007/08 and 2011/12, the benefit element of tax credits experienced the largest absolute increase of any cash benefit received by the middle fifth of non-retired households, rising from £280 in 2007/08 to £610 in 2011/12. This is due to an increase in both the percentage of middle income households in receipt of the benefit element of tax credits (from 6.3% to 12.1%), and in the average amount of tax credits received. This is explained by a combination of factors, including the fall in original income for middle-income households over this period, which will have impacted on both eligibility for and the average value of tax credits received.

The amount of State Pension received by the middle fifth of non-retired households also increased between 2007/08 and 2011/12. This is mainly due to an increase in the number of people over State Pension Age in the middle of the income distribution who are in employment or self-employment, and so are classified as non-retired in this analysis.

Another major contributor to the rise in total cash benefits received by middle income households since the start of the economic downturn was housing benefit. Between 2007/08 and 2011/12 the average amount of housing benefit received by households in the middle fifth of non-retired households increased from £240 to £550 a year, which is associated with the percentage of households in this group receiving housing benefit increasing from 5.2% to 9.2% over the same period. As with tax credits, eligibility for housing benefit is linked to household income, and so the rise in its receipt by middle income households is also likely to be explained by the fall in original income for this group.

These changes, as well as increases in other benefits such as student support, statutory maternity pay and disability living allowance, combined with the fall in original income, have resulted in the proportion of gross income the middle fifth of non-retired households obtain from cash benefits increasing from 7.6% to 12.3% between 2007/08 and 2011/12. Figure 5 shows that, while the proportion of income coming from cash benefits for the middle fifth typically rises after recessions, the recent increase is larger than those seen in the early 1980s and early 1990s recessions.

Figure 5: Cash benefits as a percentage of gross income for the middle quintile of non-retired households



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As well as an increase in the average amount of cash benefits received by middle income households, there has also been an increase in the number of middle income households receiving cash benefits. Between 2007/08 and 2011/12, the proportion of middle income households receiving any cash benefit increased from 61% to 64%, while over this period the proportion of middle income households deriving more than one-tenth of their income from cash benefits increased from 22% to 32%.

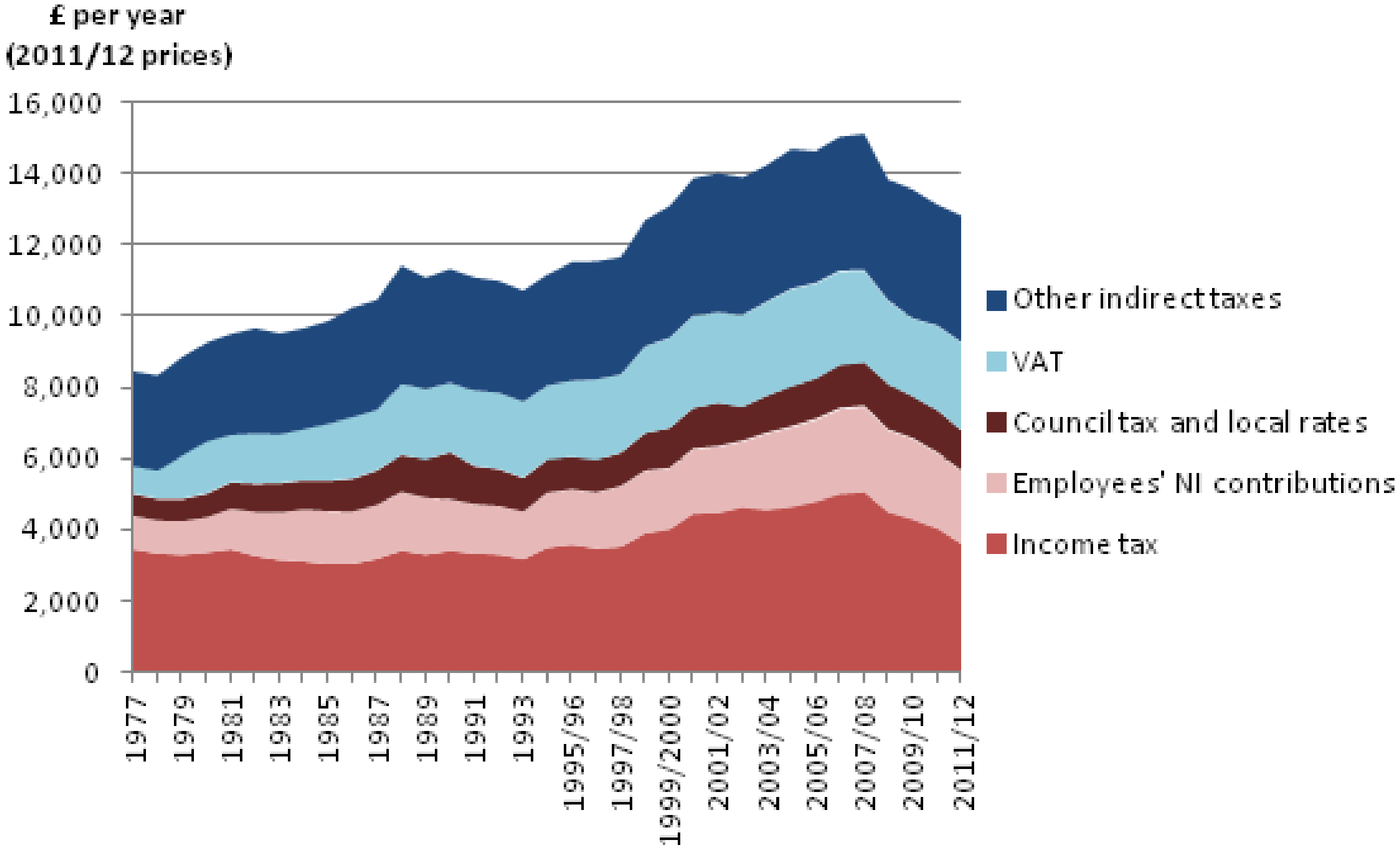
Notes

1. In this analysis, where tax credits received are less than or equal to the total income tax liability of the household, they are treated as a 'negative tax'. Any tax credits received in excess of this amount are considered a cash benefit. Only the value of tax credits treated as cash benefits are included in gross income.

Effect of taxation on middle income households

Disposable income is the income households have after direct taxes - which include income tax, employees' National Insurance contributions and council tax - have been deducted from gross income. Disposable income for the middle fifth of households has risen from £14,400 in 1977 to £25,400 in 2011/12 in real terms.

Figure 6: Direct and Indirect taxes paid by the middle income quintile of non-retired households



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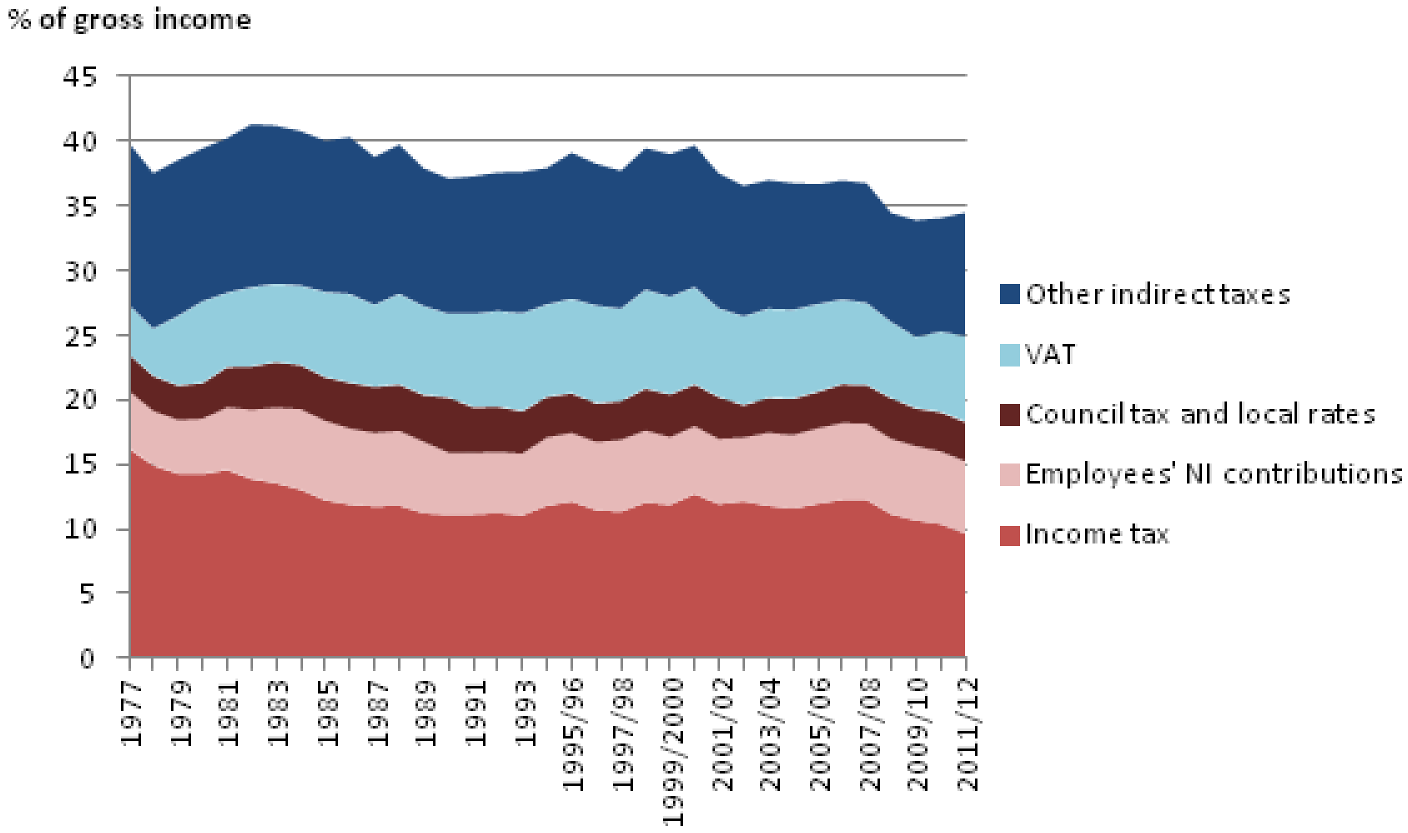
Looking just at the middle fifth of non-retired households, to control for the demographic change, the average disposable income grew from £16,200 to £30,400 between 1977 and 2011/12. Over this period, the average direct tax paid by households in this group rose from £5,000 to £6,800, after taking inflation into account, with employees' National Insurance contributions being the largest single contributor to this rise over the longer term.

Figure 7: Direct and Indirect taxes paid as a proportion of gross income the middle income quintile of non-retired households



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Looking at direct taxes as a proportion of gross income, there have been some small fluctuations over the period and a slight fall from 23.5% in 1977 to 21.1% in 2007/08. Since the start of the recent economic downturn, direct taxes paid by the middle fifth of non-retired households have fallen further, to 18.3% of gross income in 2011/12.

The largest single driver of this fall was income tax, which on average fell from £5,100 in 2007/08 to £3,600 in 2011/12 for the middle fifth of non-retired households. This is partly due to the progressive nature of income tax and partly due to policy changes such as the increase in the personal allowance between 2010/11 and 2011/12. Income tax is a progressive tax because as incomes rise, the proportion of a household's income paid in income tax rises. As a result, a fall in income, such as that which occurred after the economic downturn, will lead to a disproportionately large fall in income tax and so a fall in income tax as a percentage of income. Falling earnings for this group have also lead to a decrease in average employees' National Insurance contributions.

Indirect taxes

Indirect taxes, such as VAT, are not directly levied on households but are indirectly borne by them, for example, through higher prices. Over the longer term, indirect taxes have also risen for the middle fifth of non-retired households, from £3,500 in 1977 to £6,000 in 2011/12, although the amount paid as a proportion of gross income has remained fairly constant over time.

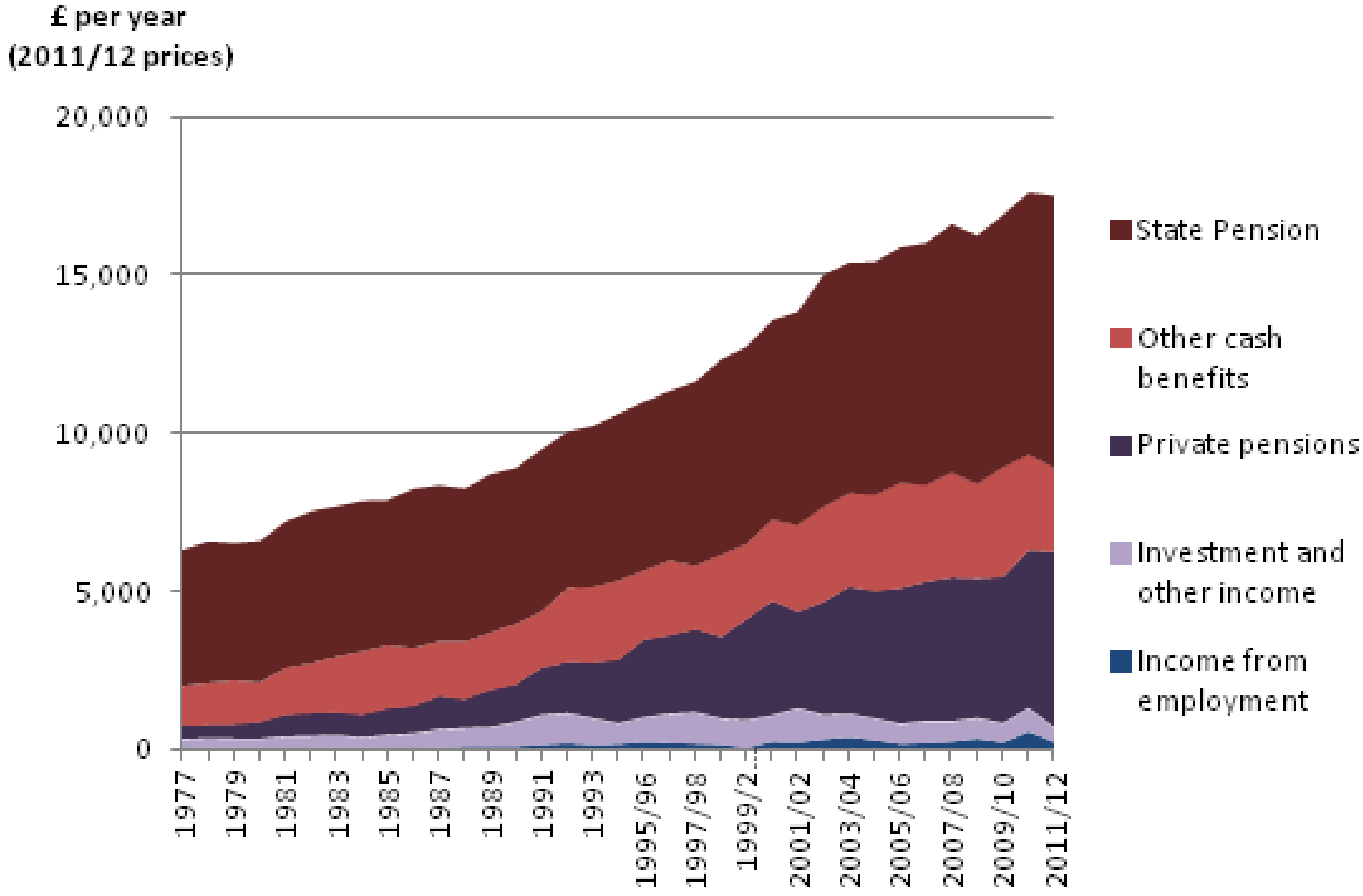
Between 2007/08 and 2011/12, the average indirect tax paid by middle income households fell from £6,400 to £6,000. However, as indirect tax paid fell by less than gross income over the period, indirect tax as a proportion of gross income increased slightly, from 15.6% to 16.2%. This rise was partly due to a rise in VAT as a proportion of gross income, largely explained by the increases in the standard rates of VAT from 15.0% to 17.5% on 1 January 2010 and to 20.0% on 4 January 2011.

Overall, total tax as a percentage of gross income has remained relatively stable over most of the period covered, falling from 39.8% in 1977 to 36.7% in 2007/08. However, since the start of the recent economic downturn, the total effective tax rate for this group has fallen further, to 34.4% in 2011/12. This fall is due to the total tax middle income households pay falling at a faster rate than their income.

Income of the middle fifth of retired households

Between 1977 and 2011/12, the gross income of the middle fifth of retired households grew at an average annual rate of 3% from £6,300 to £17,500, after adjusting for inflation. As with non-retired households, the composition of income for the middle fifth of retired households has also changed considerably over this period. However, unlike the middle fifth of non-retired households, the middle fifth of retired households have seen a reduction in the proportion of their income derived from cash benefits over the period, from 88% in 1977 to 64% in 2011/12.

Figure 8: Composition of gross income for the middle income quintile of retired households



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This has mainly been due to the growth in the percentage of these households receiving private pensions (including occupational pensions) from 37% in 1977 to 81% in 2011/12 and an increase in the income from these pensions. In 1977, the average income received by the middle fifth of retired households from private pensions was £430, accounting for 7% of the income of this group. By 2011/12, the middle fifth of retired households received an average of £5,560, or 32%, of their gross income from private pensions.

The State Pension was the largest source of income for the middle fifth of retired households throughout the period and was the second largest source of growth, nearly doubling from £4290 in 1977 to £8580 in 2011/12.

Between 2007/08 and 2011/12, the gross income of the middle fifth of retired households grew by 5.5%. The largest driver of this increase was again income from private pensions, which grew by 22%. This was partly due to more recently retired people receiving higher incomes from private pensions, on average. The other source of growth over this period was the State Pension which grew by 9% for the middle fifth of retired households. This was due to a number of causes, including a reduction in the number of years of National Insurance contributions required to qualify for the full amount of Basic State Pension, and a rise in the number of pensioner couples living in the middle fifth of the retired income distribution.

In contrast to non-retired households, cash benefits other than the State Pension decreased for the middle fifth of retired households by nearly as much as the State Pension increased. The income these households received from investments also fell during this period, reaching its lowest level since 1985 in 2011/12.

Taxation

As the income and expenditure of retired households has grown, so too has the amount they pay in direct and indirect taxes. In 1977 the average direct tax paid by the middle fifth of retired households was £500 and the average amount of indirect tax paid was £900. By 2011/12 the average direct tax paid by this group had risen to £1,700 and the average indirect tax paid to £3,400.

Unlike non-retired households, total tax paid as a percentage of gross income for the middle fifth of retired households rose over this period, from 22.5% to 28.9%. Direct tax paid by the middle fifth of retired households rose by 15% between 2007/08 and 2011/12, mainly due to an increase in the amount paid in income tax. The amount paid in indirect tax rose by 24% over the same period, with VAT the largest factor in this increase.

The article: The Income of Retired Households, 1977-2010/11 further analyses trends in retired households' income.

Background notes

1. The figures in this article are based on the Effects of Taxes and Benefits on Household Income series produced by the Office for National Statistics, which itself is derived from the Living Costs and Food Survey (LCF). This series has been chosen for this article due to its long time series and the availability of expenditure data which allows for the calculation of indirect taxes. The period covered is 1977 to 2011/12 because this is the period over which data from the Effects of Taxes on Benefits on Household Income series is available.

2. The data used in this analysis is based on that previously been published in tables accompanying in the Effects of Taxes and Benefits on Household Income annual article. A historical series of tables covering the period 1977-2011/12 is available on the ONS website.

3. All income, tax and benefit measures given in this article for the UK have been deflated to 2011/12 prices using an implied deflator for the household sector in order to give a better comparison of households' standards of living. The figures are all given before housing costs.

4. Before 1994, the Effects of Taxes and Benefits on Household Income series was produced on a calendar year basis. Since 1994/95, Effects of Taxes and Benefits on Household Income has been produced on a financial year basis.

5. From 1996/97 onwards, the LCF data are weighted to correct for different levels of non-response between different compositions of household. The data for the years before 1996/97 are unweighted.

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Appendices

Supporting information

Glossary

Retired and non-retired persons and households

A retired person is defined as anyone who describes themselves (in the Living Costs & Food Survey) as ‘retired’ or anyone over minimum National Insurance pension age describing themselves as ‘unoccupied’ or ‘sick or injured but not intending to seek work’. A retired household is defined as one where the combined income of retired members amounts to at least half the total gross income of the household. Non-retired individuals are simply those who do not meet the criteria of retired individuals. A non-retired household is one where combined income of non-retired members amounts to more than half the total gross income of the household. By no means are all retired people in retired households and all non-retired people in non-retired households. For example, households comprising one retired and one non-retired adult are often classified as non-retired. Around one in five households comprising three or more adults contains retired people.

Original Income

Original income is all income that households receive from non-government sources, including earnings from employment and income from private pensions, annuities and other investments.

Gross Income

Gross income is the total income households receive from original income plus cash benefits provided by the state, including the State Pension.

Disposable Income

Disposable income is the amount of money that households have available for spending and saving. It is equal to gross income minus direct taxes (such as income tax and council tax).

Post-tax Income

Post-tax income is the income households are left with after indirect taxes (such as VAT) have been deducted from disposable income.

Equivalisation

Equivalisation is a process that makes adjustments to disposable incomes, so that the standard of living of households with different compositions can be compared. When applying an equivalence scale, the values for each household member are added together to give the total equivalence number for that household. This number is then used to divide disposable income for that household to give equivalised disposable income. The equivalence scale which has been applied to the LCF income data in order to divide the sample into the fifths (also known as income quintiles) used in this article is the modified-OECD scale where a two-adult household has an equivalence value of one:

Modified-OECD Equivalence Scale:

Type of household member	Modified-OECD Equivalence value
First adult	0.67
Second and subsequent adults	0.33 (each)
Child aged 14 and over	0.33 (each)
Child aged 13 and under	0.2 (each)

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Unit of analysis

The basic unit of analysis used is the household, and not the family, individual or benefit unit. A household is defined in terms of the harmonised definition as used in the Census and nearly all other government household surveys since 1981. This is one person, or a group of people, who have the accommodation as their only or main residence and (for a group) share the living accommodation, that is a living or sitting room, or share meals together or have common housekeeping.

Up until 1999-2000, the definition was based on the pre-1981 Census definition and required members to share eating and budgeting arrangements as well as shared living accommodation. The effect of the change was fairly small, but not negligible. Spending on many items, particularly on food, housing, fuel and light, is largely joint spending by the members of the household. Without further information or assumptions it is difficult to apportion indirect taxes between individuals or other sub-divisions of households.

The sample households have been classified according to their compositions at the time of the interview. This classification is sensible for the vast majority of households, but it can be misleading for the very small number of cases where a spouse is absent from the household at the time of interview. The absent spouse may well be working away from home, or living separately - but contributing financially to the household's upkeep. These contributions would be picked up as part of the household's original income. Also, it is likely that some households will have changed their composition during the year.

Related statistics and analysis

Related publications produced by ONS include:

The Effects of Taxes and Benefits on Household Income, 2011/12

The Effects of Taxes and Benefits on Household Income, Historical Data

Fifty years of the Effects of Taxes and Benefits on Household Income

Middle Income Households, 1977-2010/11

Income of Retired Households, 1977-2010/11

An alternative source of income data in this area is the Households Below Average Income (HBAI) series, produced by the Department of Work and Pensions and based on the Family Resources survey. Due to HBAI being based on a different survey, along with some methodological differences (for example HBAI measures inequality on an individual basis whereas ETB measures inequality on a household basis), HBAI and ETB estimates can differ slightly from each other. However, historical trends are broadly similar.

Measuring National Well-being

This release adds to the evidence base amassed as part of the ONS Measuring National Well-being Programme. The programme aims to produce accepted and trusted measures of the well-being of the nation - how the UK as a whole is doing.

Measuring National Well-being is about looking at 'GDP and beyond'. It includes headline indicators in areas such as health, relationships, job satisfaction, economic security, education, environmental conditions and measures of 'personal well-being' (individuals' assessment of their own well-being).

Find out more on the Measuring National Well-being website pages.