CSI 16: Have we become more indebted?

Summary
- Household debt relative to income increased rapidly in the UK during the 2000s rising by nearly 70% in the decade up to 2007.
- During the Great Recession total household debt dropped but remained much higher than in the 1990s.
- Household indebtedness increased most rapidly and became more concentrated among low income and younger households; this holds true both for secured and unsecured debt.
- Despite the rapid build-up in household debt, self-reported problems with mortgage repayments have declined since the 1990s. However, there is evidence of increasing burdens from unsecured debt.

Should we worry about household debt?
Household debt is not always a bad thing. In fact, household debt can signal improvement in household welfare and it can provide the possibility to smooth consumption over the life cycle, for example, by allowing young people to borrow against future income. However, there is reason for concern when indebtedness has reached levels likely to prove a heavy burden and put household balance sheets under pressure. Indebtedness is also a problem when households with deteriorating living standards keep accumulating debt. Highly indebted households are more vulnerable to economic shocks such as unemployment, drop in income, or increases in interest rates. Indebted households are also more likely to respond to economic shocks by cutting spending, which might further lead to a slowdown of economic growth. Therefore, household balance sheets also matter for national financial stability and the health of the whole economy. Overly indebted households are widely thought to have contributed to the depth of the Great Recession of 2008.1

Has indebtedness increased over the longer term? What impact did the recession have?
The household debt-to-income ratio is an important measure of household indebtedness: it indicates how many years it would take for a household to pay off their debt if they were to use the whole of their annual income on the debt repayment. Figure 1 shows that the ratio in the United Kingdom was relatively steady between 1988 and 1999 but increased sharply from 2000 onwards. According to ONS figures based on the UK National Accounts, by 2007 the household debt-to-income ratio was 1.7 compared with a ratio of around 1.1 in the 1990s. Different data sources suggest slightly different levels of indebtedness but all show the same trend over time. Household debt also rose in many other countries but the UK

Technical details
Most figures of indebtedness are based on calculations by the author using data from the British Household Panel Study and UK Household Longitudinal Study (UKHLS), also known as Understanding Society. Figure 1 gives confidence in using BHPS for studying household debt as it demonstrates that household debt figures from the BHPS match up well with other sources, including the UK National Accounts used by the ONS. This briefing note focuses on two types of debt: secured property debt and unsecured debt. For property debt, respondents were asked to state the total amount of outstanding loans on all property they or a household member owe. The total amount of property debt is divided by household disposable income to give the ratio. As a comparable measure we look at the cost of monthly mortgage servicing. Total monthly mortgage installments are divided by household monthly income in order to attain a monthly mortgage-to-income ratio. For unsecured debt, respondents are asked to state the total amount of unsecured debt they owed, including: hire purchase agreements; personal loans (from a bank, building society or other financial institution); credit cards; store cards; DSS Social Fund loans; any other loans from a private individual; overdrafts; student loans. For the unsecured debt-to-income ratio, household income is divided by the sum of unsecured debt owed by all members of a household. For total household debt, outstanding household property debt is added to household unsecured debt and divided by income. The goal is to present data for the period of 1991 to 2012; however, not all indicators are available. Hence, some graphs will be based on a limited time-series.
stands out with a higher than average level of household debt. Various reasons have been put forward to explain the sharp rise in household debt in this period, including rising house prices, low interest rates, tax incentives, heightened demand, and increasing availability of credit. When the financial crisis hit in 2008 the growth in household debt fell mainly due to a freeze in mortgage lending. This caused the debt-to-income ratio to drop from 2008 onwards, even before incomes started to stagnate due to the recession. However, the overall level of household debt-to-income ratio has remained high at 1.5 as compared to 1.1 in the 1990s.

**Fig 1: Total household debt-to-income ratio increased rapidly until 2007**

*Refers to total secured and unsecured debt in relation to household annual income. Source: ONS, BHPS, Eurostat, OECD.*

For whom has debt increased?
The aggregate national indicators on indebtedness offer a long time-series; however, they only present the average level of debt at each time point. These averages conceal a wide variation in the levels and nature of financial burdens being faced by different types of households. Figure 2 shows that the total household debt-to-income ratio increased most rapidly for the lowest income group, from 1.6 in 1995 to 2.7 in 2005. Debt also went up among other income groups, although to a lesser extent.

**Different types of debt: secured and unsecured**
Secured debt – often referred to as property debt – is guaranteed by an asset. Secured debt accounts for about three quarters of overall household debt. Unsecured debt is a type of loan or credit that is extended without a collateral requirement. It constitutes a smaller proportion of overall debt but it is generally more expensive in terms of higher interest rates. We look next at the evolution and distribution of both property debt and unsecured debt.

**What happened to property debt?**
Figure 3 presents the ratio between total property debt – outstanding loans on all property – and household annual net income (see left-hand panel of Figure 3). These figures reflect indebtedness among the working-age population with a mortgage. The property debt-to-income ratio refers to the number of years of annual household income that it would take for the household to pay for their property debt. It appears that for the low income group the ratio decreased around the mid-1990s but then increased again from 2000 onwards. The increase in the 2000s occurred also for other income groups but was particularly
remarkable for the lowest income group. By 2008, the lowest income group needed 4.5 years of annual net income to pay off their property debt as compared to around 3 years in the late 1990s. On average the ratio of indebtedness for the low income group is about twice as high as for the middle and below income group (those in deciles 3-5 in the income distribution). Similar trends emerge when looking at the monthly mortgage payment to monthly income ratio (see right-hand panel of Figure 3). It appears that in 2006 it took people in the lowest income group about 40% of monthly household income to service their mortgage. For other income groups in that year the proportion was substantially lower, ranging from 11% for the most rich to 16% for the middle and below income group. During the Great Recession monthly mortgage servicing relative to income dropped, especially among the lowest income group. This reflects the impact of UK policy decisions involving provision of relief to mortgage holders, namely lowering the interest rate.

Fig 3: Secured property debt/income ratio is highest for people on low incomes
Secured debt to annual household net income ratio and monthly mortgage payment to monthly income ratio. Source: BHPS and UKHLS.

Debt is often used against future income to purchase a home, which explains why younger people are on average more indebted than older people. Figure 4 shows that property debt relative to income is highest for people in the 26-35 age group (left-hand figure); by 2008 their property debt amounted to 2.7 years of their annual income, as compared to 1.7 a decade earlier. This is also the age group for whom the debt-to-income ratio increased most substantially in the 2000s, reflecting entering the mortgage market when house prices were at their peak. A similar trend is observed when we look at monthly mortgage to monthly income ratio (right-hand figure).

Fig 4: Secured property debt/income ratio is highest for the 26-35 age group
Secured debt to annual household net income ratio and monthly mortgage payment to monthly income ratio. Source: BHPS and UKHLS.

What happened to unsecured debt?
Similarly to property debt, unsecured debt has also increased over time (see Figure 5). In 2005 the low-income group had unsecured debt amounting to almost half of their annual income: 45% as compared to 15% only ten years earlier (left-hand panel). This figure did not fall during the financial crisis and increased slightly by 2012 (48%). Between 1995 and 2005 the unsecured debt-to-income ratio doubled
among the middle and below income group: an increase from 15% to 32%. Among different age groups, unsecured debt has increased at a higher pace among those aged 18-25 (right-hand panel). The increase in unsecured debt among low-income and young people is partially explained by student debt, which has become increasingly common in this period. However, even when ignoring student debt, the unsecured debt-to-income ratio doubled for the lowest income group in the period of 1995 to 2005. The overall proportion of people taking up unsecured debt has remained relatively stable over time, ranging from roughly a third to a half of the population.

Are people reporting more financial stress?

The proportion of mortgage holders reporting problems with paying for housing dropped rapidly in the 1990s (Figure 6 left-hand panel). The drop was particularly remarkable in the low-income category – 38% reported problems with paying for accommodation in 1991 in comparison to only 9% in 2001. Throughout the 2000s, when property debt relative to income rose sharply, the proportion of mortgage holders reporting problems with paying for their mortgages remained relatively low and stable: less than 10%. This is most likely a reflection of the low interest rate environment. When it comes to unsecured debt, however, well over half of low-income people with an unsecured debt admit feeling burdened by repayment of it. This has not shown the same kind of decline since the 1990s as occurred for mortgage problems. We only have reliable data for the period before the recession hit; additional data sources (not shown) suggest a small increase during the recession.

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1 Mian and Sufi. (2015). House of debt: how they (and you) caused the Great Recession, and how we can prevent it from happening again. Chicago: The University of Chicago Press.