22/5/15

NOTE FOR RECORD

From (SEAD, x3096)

WHO IS DRIVING THE CONSUMPTION RECOVERY?

Main message: Younger and more indebted households accounted for a disproportionate share of the fall in consumption during the financial crisis. Up to 2013, consumption microdata suggest that older households - who were less affected by the main headwinds to spending - saw the fastest growth in spending in the recovery. Qualitative data from the latest NMG survey imply that spending growth among older households is likely to have remained robust over the last year, but there is evidence that younger and more indebted households may have spent more. In the NMG data, the net balance of households expecting to spend more over the next year was similar to the proportion who reported increased spending over the last year.

Key points:

- Aggregate data can mask significant heterogeneity between different groups. This note investigates which groups of households can explain the fall and subsequent recovery in consumption using microdata from the Living Costs and Food Survey (LCFS) and latest NMG survey.

- The reduction in spending relative to income in the crisis was bigger for measures of cash spending relative to cash income (which is the definition available from microdata) and is further above its pre-crisis level than the National Accounts saving ratio data imply.

- Spending fell for all housing tenure groups during the crisis, but the biggest cuts were among the highly indebted. Spending fell for all age groups after 2007, but the biggest falls were among the young. These results are consistent with the headwinds of tighter credit conditions, increased uncertainty and a debt overhang playing an important role.

- At least up to 2013, households above age 65 - who were less affected by headwinds such as higher uncertainty and tighter credit conditions - saw the fastest growth in spending in the recovery. Spending increases among other groups were more modest, and if anything the young and more indebted contributed the least.

- In the latest qualitative NMG data, the proportion of households expecting to spend more over the next year was similar to the proportion who reported increasing spending over the last year. Households also reported an improvement in their income expectations.

- The latest NMG data imply that growth in spending by older households is likely to have remained robust over the recent past, but there are also some signs that spending growth may have risen among the young and more indebted: concerns about debt have been falling and unemployment rates among younger households have fallen back substantially.

- Younger and more indebted households are likely to have to continue spending if the recovery is to be maintained. These groups should benefit from a pick-up in wage growth, but it may not be right to assume that spending relative to income should return to its pre-crisis level for all groups.

Introduction

Aggregate data can mask significant heterogeneity between the spending patterns of different groups of households. This note uses microdata to look at which groups of households have driven the consumption recovery to help us better understand the reasons behind that recovery and to help assess its sustainability.

Up until 2013, the note uses consumption microdata from the Living Costs and Food Survey (LCFS), which now includes the recently released 2013 data. This is a repeated cross section of around 5-6000 households a year and is the main source of consumption microdata for the UK. Data from the LCFS are used to help construct estimates for some components of spending in the National Accounts, particularly food. For the more recent period - where consumption microdata are not available - and to look forward, I use qualitative data from the latest NMG survey. This is a survey of 6000 households that is commissioned by the Bank that was run during late April/early May. For the first time in the latest survey we included questions asking households how they had changed spending over the last year and how they expect to change spending over the next year. The survey also contains some longer running questions on factors affecting spending that we also make use of.

The note starts with a summary of the consumption recovery, it assesses the reliability of the microdata for understanding aggregate trends and then presents the micro evidence, cutting the data by first housing tenure and then age.

Macro view on the consumption recovery

Following the end of the recession the level of aggregate consumption remained broadly flat until the second half of 2011, after which annual spending growth picked up gradually to around its long run average by the second half of 2014, although quarterly growth did fall back in 2014 Q4 (Chart 1). Consumption growth is projected to pick up a little further in the first part of the forecast before falling back to its average.

Chart 1: Real consumption growth and income growth

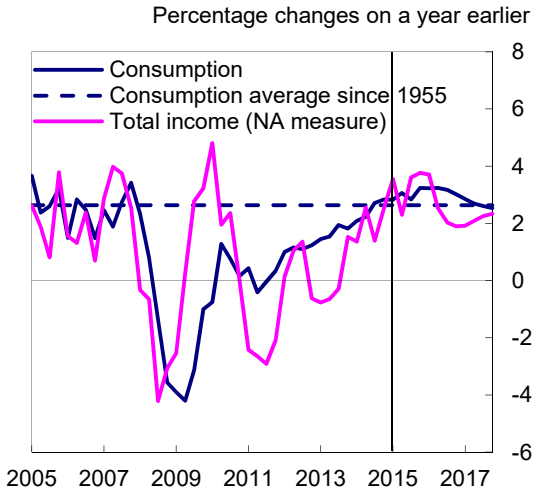
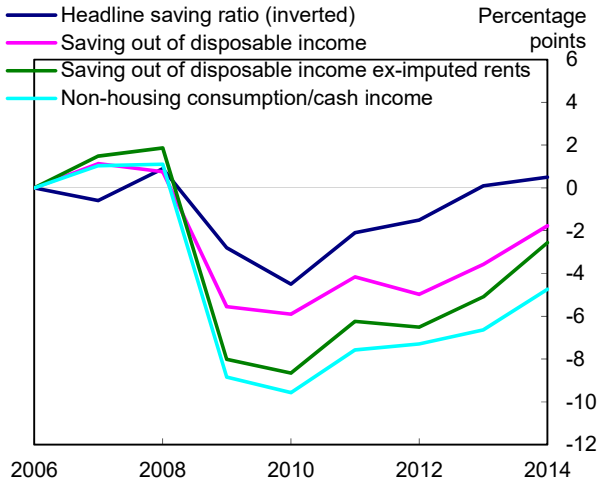


Chart 2: Changes in consumption relative to income from 2006



The fall in consumption during the financial crisis primarily reflected a reduction in spending relative to income, with real income falling relatively modestly once some of the volatility has been smoothed through (Chart 1). In the recovery up until the second half of 2013, saving falling back financed the modest spending recovery that there was. Only more recently has real income growth picked up, with spending and income growing at a similar rate during 2014, which is expected to continue to be the case over the forecast.

There are some conceptual differences between the National Accounts consumption and income data and the microdata used to assess trends in spending for different groups. The three main ones are:

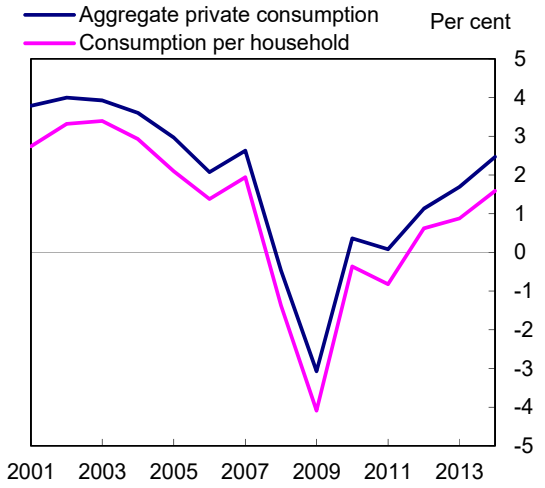
- **The LCFS does not included imputed rental expenditure of owner occupiers**. This is a significant component of housing consumption in the National Accounts. We therefore only focus on non-housing consumption when comparing to the microdata.
- **The National Accounts includes forms of income that are not directly received by households which are not captured in the microdata**. These include income received by pension funds on behalf of households and changes in the value of future pension entitlements. This also excludes imputed rental income received by owner occupiers, consistent with excluding imputed rental expenditure.
- **Surveys can only measure spending/income on a per household basis.** I adjust the National Accounts data accordingly.

Adjusting the National Accounts data to include only cash income and spending – consistent with the microdata definition – implies a larger fall in consumption relative to income over the financial crisis (Chart 2). The adjusted series may be likely to be more consistent with households' views on the state of their finances. Excluding income paid to pension funds, the fall in consumption relative to income (the pink line on Chart 2) was larger than the fall relative to total income (shown by the inverted saving ratio, the dark blue line on Chart 2) because income accrued in pension funds fell during the crisis. Excluding imputed rental income and spending makes that fall look bigger again (the green line on Chart 2) because imputed rental income relative to imputed spending fell during the financial crisis (at least in part related to FISIM and higher mortgage spreads). And only considering non-housing - which is the measure in microdata - makes the fall look even larger still (light blue line on Chart 2), given that non-imputed housing consumption rose relative to income.

The headline saving ratio has flattened off recently and is back to its pre-crisis level, but these other measures of spending relative to income offer a slightly different interpretation. They suggest that spending has continued to grow faster than cash/disposable income in 2014 and that spending relative to income is not back to its 2007 level. In an absolute sense these alternative measures are currently closer to their averages since 1987 than the headline saving ratio, which is well below.

Analysing spending on a per household rather than aggregate basis makes the recession appear longer lasting and the recovery slower (Chart 3). Once growth in the number of households is accounted for, real consumption per household in the National Accounts is estimated to have fallen for 4 consecutive years between 2008 and 2011 with a cumulative fall of almost 7%, compared to a 3.5% fall spread over 2 years in aggregate space. The profile of the recovery looks similar but suggests the average household has only increased spending by 1.5% in 2014 rather than 2.5% in the aggregate data.

Chart 3: Annual real consumption growth



Assessing the reliability of the LCFS microdata

For the consumption microdata from the LCFS to be helpful in assessing which groups are driving total spending, it is important to know how well the microdata match up to comparable aggregate data. Consumption growth in the LCFS broadly tracks the National Accounts over time, although it is more volatile and has on average, under-recorded growth relative to the aggregate data (Chart 4). Since 2006, average non-housing consumption growth in the LCFS has been similar to the National Accounts. The extent of the fall in 2009 is smaller, but there is a clear pickup in growth in the latest 2013 data.

Relative to income, there is an obvious fall in spending after 2006 in the microdata. That fall is more gradual than in the National Accounts data and there is less of a recovery from the trough, but the net change between 2006 and 2013 is very similar (Chart 5 – this is comparable to the turquoise line on Chart 2). By 2013 - the latest observation in the microdata - consumption relative to income had not recovered that far, so there is a limit to how much we can say about which groups have driven the fall in the aggregate saving ratio from this source. Over the longer term, income growth in the LCFS has broadly tracked the growth of income in the National Accounts, albeit with more volatility, but because there is a degree of under-recording in consumption, the fall in the saving ratio that is evident in the National Accounts data from the early 1990s is not a feature of the LCFS.

Overall, the trends in the LCFS are sufficient to be informative about recent movements in consumption, although they don't match up perfectly and the microdata are more volatile, and so any precise comparisons must be considered in that context. In the analysis below, I scale the LCFS data to match comparable data in the National Accounts. Only the relative differences therefore come from the microdata.[1]

Chart 4: Real non-housing consumption

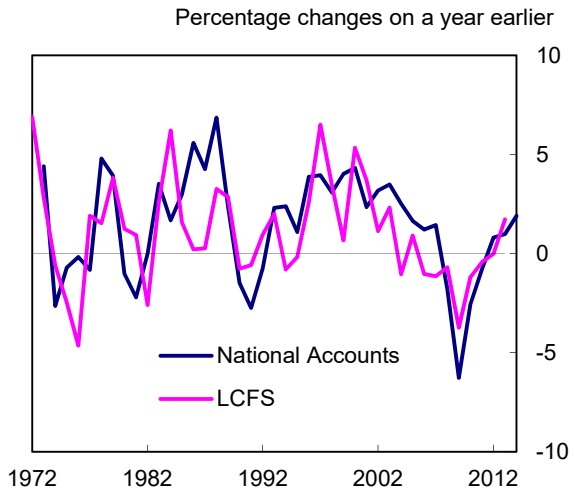
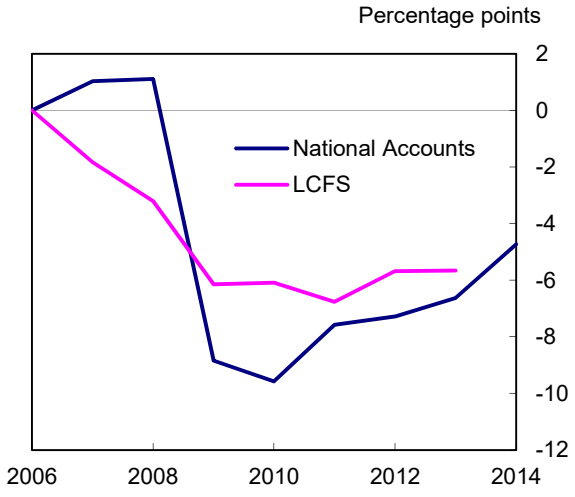


Chart 5: Changes in non-housing consumption relative to cash income from 2006



[1] Doing this implies that differences between the aggregate measures from the LCFS and National Accounts just reflect data volatility. But it is also possible they reflect either definitional differences/weights that cannot easily be accounted for or different spending behaviour among groups such as very wealthy households who may be less well captured by microdata. It is also relevant to note that as the LCFS is a repeat cross-section and not a panel it cannot be used to assess how spending actually changed for any individual household, only how spending changed for groups of households with particular characteristics.

Who is driving the consumption recovery?

Trends in spending by housing tenure group

All housing tenure groups cut spending during the financial crisis.[2] But as identified in previous work that fed into MPC-FPC housing analysis last year, households with mortgage debt to income ratios above 2 made the biggest reductions in spending (Chart 6).[3,4] The higher debt group also saw the strongest growth in real income over the 2008/09 period, in large part because they disproportionately benefited from Bank Rate being reduced to 0.5% (Chart 7 - income is measured net of mortgage interest payments, as in the National Accounts). That implies more indebted households made by far the largest reductions in spending relative to income after 2007 (Chart 8). Cuts in spending relative to income were of a similar magnitude among other tenure groups.

Chart 6: LCFS real non-housing consumption

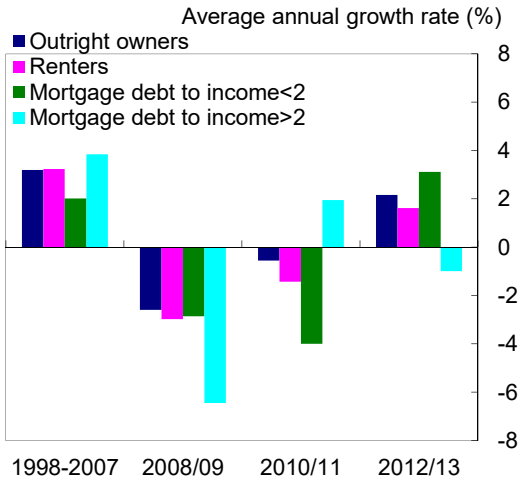


Chart 7: LCFS real disposable income

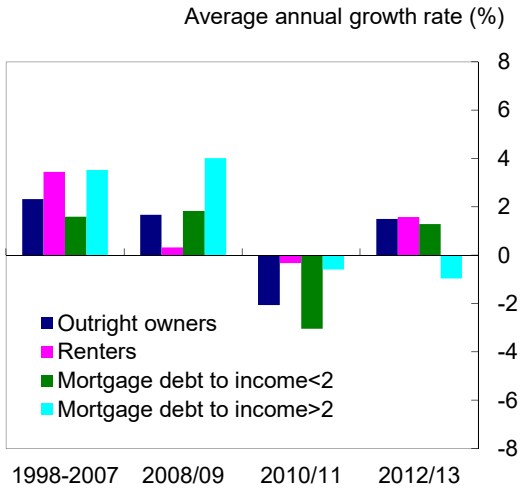


Chart 8: LCFS changes in non-housing consumption relative to income from 2006

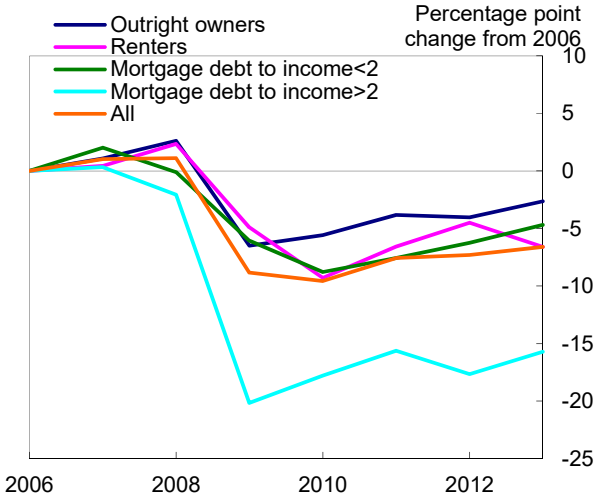
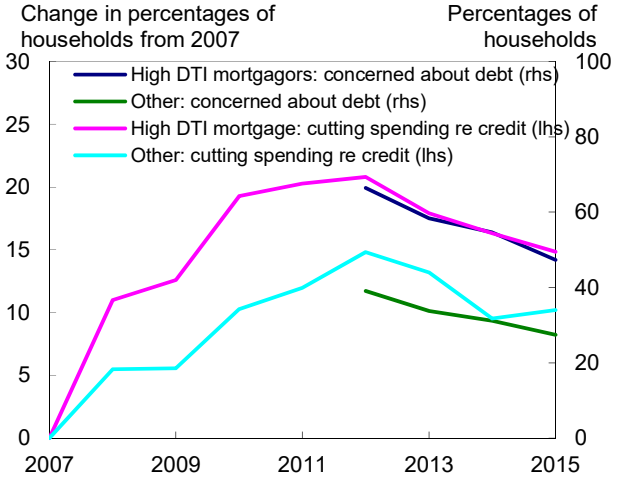


Chart 9: NMG concerns about debt and cutting spending due to credit constraints[(a)]



(a) Questions: 'How concerned are you about your current level of debt' and 'Have you been put off spending because you are concerned that you will not be able to get further credit when you need it, say because you are close to your credit limit or think your loan applciation will be turned down?'.

[2] In 2007, outright owners accounted for around one third of the sample, renters just under 30% and mortgagors the rest, with a relatively even split between those with mortgage debt to income ratios above and below 2.
[3] The survey only contains data on mortgage debt and not unsecured debt.
[4] See and http://www.bankofengland.co.uk/publications/Documents/quarterlybulletin/2014/qb14q304.pdf.

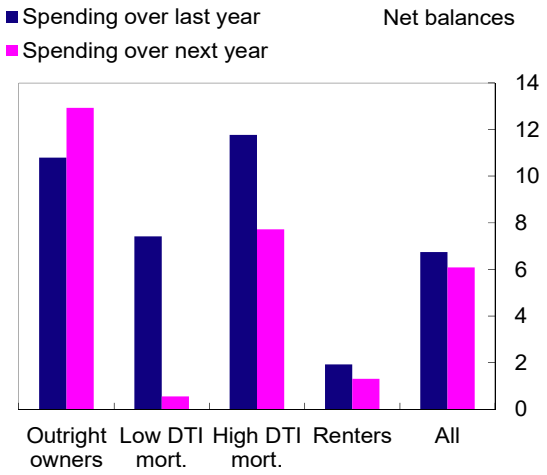
Evidence from the NMG survey suggests that larger spending cuts by higher debt households reflected a combination of them being disproportionately affected by tighter credit conditions and being more concerned about their ability to make future debt repayments (Chart 9). There is also evidence that highly indebted households also made larger cuts in spending in the early 1990s recession, although there were fewer of them in that earlier period.

Up to 2013, LCFS data suggest that recovery in consumption was fairly broad based across different tenure groups, and was not driven by an unwinding of the larger spending cuts by more indebted households. Indeed households with a mortgage debt to income ratio above 2 were the only group to see their real spending fall in 2012/13, although that may just reflect data volatility as they were the only group to see spending rise in 2011/12 (Chart 6). All groups are estimated to have raised their spending slightly in relation to income since 2009 (Chart 8). Higher debt households not significantly increasing spending up to 2013 is consistent with the NMG data in which households reported their concerns about debt and credit availability had not fallen back very far by that point (Chart 9).

Beyond 2013, qualitative data from the latest NMG survey can help to assess differences in spending patterns between different groups. Overall, a net balance of 7% of households reported increasing their spending over the past year in the latest survey that was carried out between 21 April and 6 May.[5] A similar proportion expected to also increase spending over the next year, implying a comparable rate of consumption growth over the next year to that seen over the past year (Chart 10). As these are new questions, the lack of time series does make them more difficult to interpret and the results need to be treated with some caution, but there are nevertheless some interesting results in the more disaggregated data.

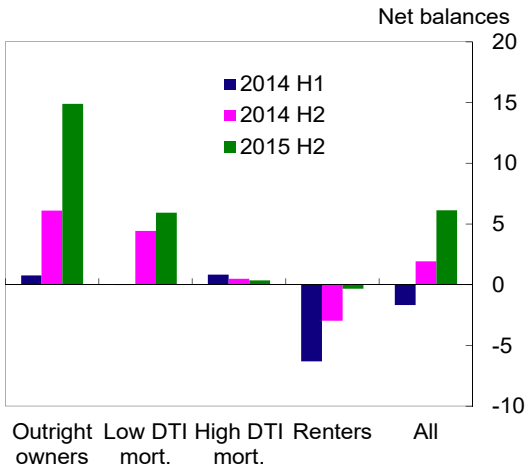
The reported increase in spending over the last year in the NMG data was largest among households with a mortgage debt to income ratio above 2, closely followed by owner occupiers (Chart 10). Renters were least likely to report raising spending. That could be consistent with NMG data suggesting concerns about debt and credit availability have fallen further since 2013 for higher debt mortgagors, although they have also fallen for other groups (Chart 9). More indebted households were a little less optimistic about spending over the next year than the last year, but still above average.

Chart 10: NMG spending intentions by tenure[(a)]



(a) High debt to income (DTI) mortgagors are defined as those with a mortgage debt to income ratio above 2. Low DTI mortgagors are those with mortgage debt to income below 2. Questions: 'How has your household changed its spending compared with a year ago? Please exclude money put into savings and repayment of bank loans' and 'How do expect your household to change its spending over the next 12 months? Please exclude money put into savings and repayment of bank loans'.

Chart 11: NMG income expectations for year ahead by tenure[(a)]



(a) High debt to income (DTI) mortgagors are defined as those with a mortgage debt to income ratio above 2. Low DTI mortgagors are those with mortgage debt to income below 2. Question: Over the next 12 months, how do you expect your household income (before anything is deducted for tax, National insurance, pension schemes etc) to change?'.

[5] The survey just asks about 'spending', and so may be more likely be an indicator of nominal rather than real spending.

Another explanation for increased spending by more indebted households over the past year is an improvement in income expectations. Respondents to the NMG survey have reported a pickup in income expectations over the past year (Chart 11), but that is most apparent among owner occupiers and not higher debt mortgagors. We intend to do further work on the relationship between the relationship between spending intentions and expectations for a range of variables - including income, interest rates and inflation - using the NMG survey over the next few months.

Trends in spending by age

Younger households (those with a head of household aged under 35) made the largest cuts in spending during the recession with older households (head aged over 65) fairing the best, both in absolute terms and relative to income (Charts 12 and 14).[6] In part that reflects households with higher levels of secured debt being concentrated in the 16-34 and 35-49 age groups. Both of these groups were also disproportionately affected by tightening credit conditions (Chart 15 - again at least in part probably because of existing debts), and particularly for those aged under 35, higher unemployment (Chart 16). Higher unemployment rates will have had a direct effect of reducing income, but may have also led to lower spending relative to income via increased uncertainty about future income. Younger households may also have been more severely affected by reductions in permanent income resulting from lower productivity growth, with over 65's least affected. Younger households making larger cuts in spending is the pattern typically observed in previous recessions.

The fact that younger rather than older households made larger spending cuts during the crisis is consistent with distributional wealth effects from lower house prices or financial wealth effects not being the key factors driving aggregate spending trends, since these would have disproportionately affected older households.

Chart 12: Real non-housing consumption

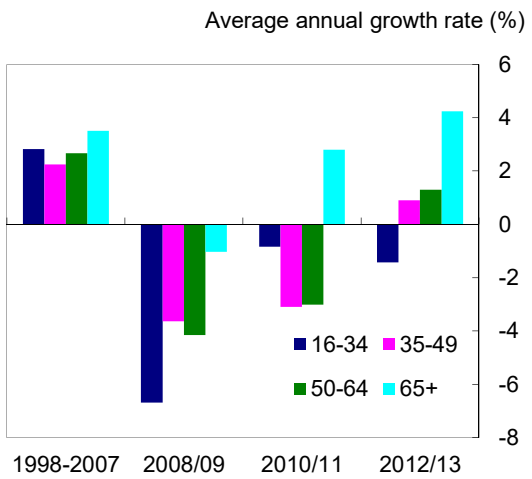
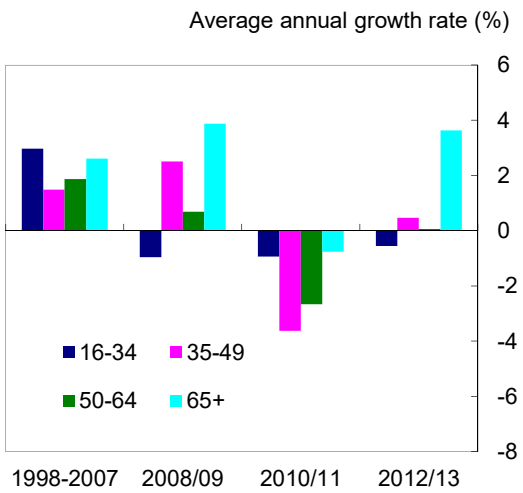


Chart 13: Real disposable income



In the recovery, up to 2013, households above age 65 saw the fastest growth in spending (Chart 12). Between 2010 and 2013, spending growth among this group was close to its average in the decade before the crisis and by 2013, their spending relative to income had almost returned to its 2006 level (Chart 14). These older households have only experienced a modest hit to their incomes since the crisis period (although investment income which these households may rely more on is typically less well recorded in household surveys than other types) with much of the squeeze in 2010/11, largerly reflecting higher inflation rather than substantially lower nominal income growth. And they were much less affected by headwinds such as tighter credit conditions and uncertainty (Charts 15 and 16).

[6] In 2007, 17% of households in the survey were aged 16-34, 30% aged 35-49, 27% 50-64 and 26% 65+.

Chart 14: Changes in non-housing consumption relative to income from 2006

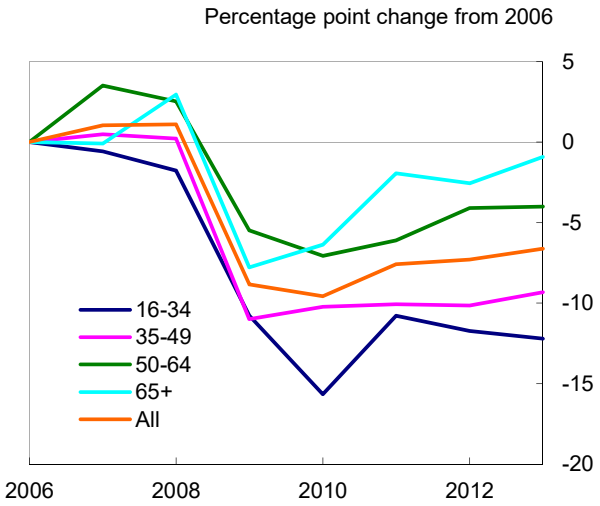
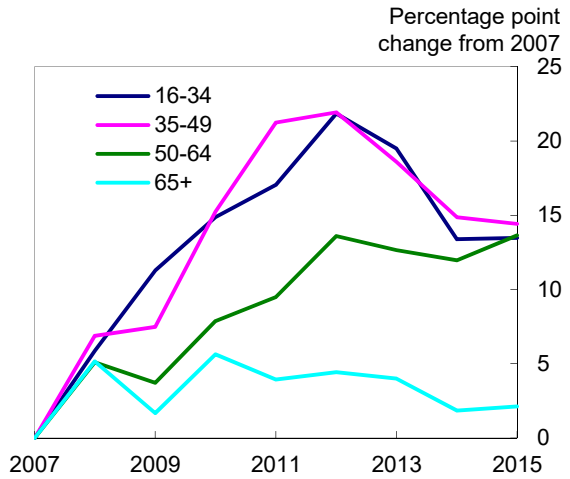


Chart 15: NMG change in proportion of household cutting spending due to credit concerns[(a)]



(a) See footnote to Chart 9 for question wording.

Chart 16: Change in share of population unemployed from 2006 (LFS data)

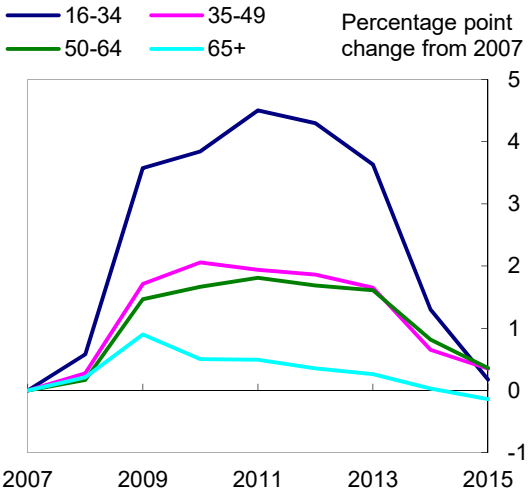
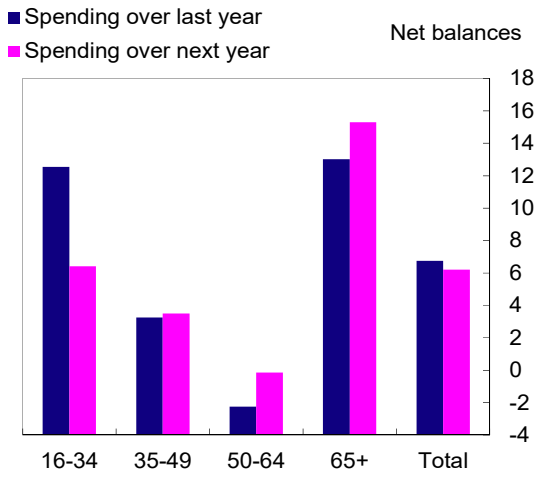


Chart 17: NMG spending intentions by age



(a) See footnote to Chart 10 for question wording.

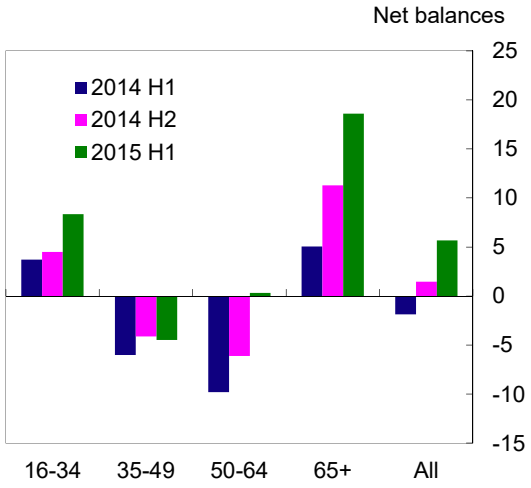
Among those aged below 65, the recovery in both real spending and income up to 2013 has been very modest with consumption only falling back slightly relative to income for all groups (Chart 14). As with the analysis by tenure group, that probably reflects the headwinds from credit and uncertainty not falling very far by 2013 (Charts 15 and 16).

More recent qualitative NMG data suggest that spending growth among older households is likely to have remained robust over the past year, but there are some signs that spending growth may have picked up for the young.[7] The net balance of households reporting increased spending over the past year was largest among those aged 16-34 and 65+ (Chart 17). That would be consistent with these two groups having the most positive income expectations: older households report the largest increase in expected income over the past year (Chart 18). However, these NMG data split by age are difficult to interpret because they will be influenced by the normal life cycle of spending. Younger households should always be more likely to be raising spending with those approaching retirement running spending down. But the data may also be affected by those in retirement having more stable incomes and always planning small increases in spending each year.

[7] This could also reflect recent pension reforms. The NMG survey also included questions to help assess the impact of these reforms. That work will be circulated separately in the near future.

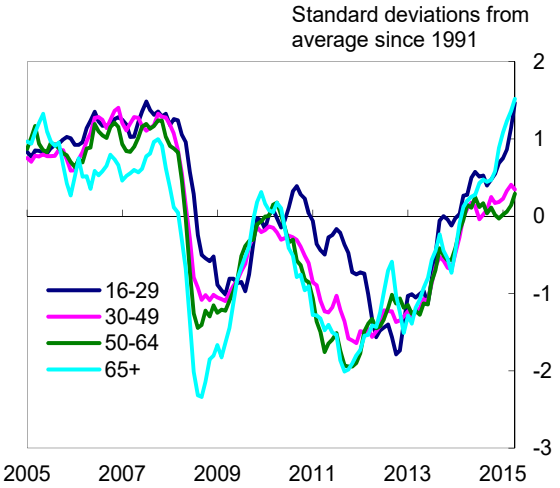
The story of increasing spending among younger and older households over the past year is corroborated by Gfk consumer confidence data on changes in personal financial situation by age: recent increases have been largest for those aged 16-29 and 65+ (Chart 19).[8] Increased spending among younger households would also be consistent with the big drop in unemployment rates for this group since 2013 and improving credit conditions (Charts 15 and 16).

Chart 18: NMG income expectations for year ahead[(a)]



(a) See footnote to Chart 11 for question wording.

Chart 19: Gfk consumer confidence personal financial situation balances[(a)]



(a) Question: 'How has the financial situation of your household changed over the last 12 months?'.

Conclusion

The fall in household spending during the financial crisis was disproportionately concentrated among younger and more indebted households. That is consistent with the headwinds of tighter credit conditions, increased uncertainty and a debt overhang playing an important role. Up until 2013, consumption microdata suggest that older households, who were less affected by the main headwinds to spending, made the biggest contribution to the consumption recovery with spending among the young and more indebted remaining subdued. Qualitative evidence from the NMG survey imply that consumption growth among older households is likely to have remained robust over the past year, but there is also evidence that younger households and those with higher debt levels may have begun to increase spending as the headwinds have eased, although the lack of time series data for these questions makes it difficult to draw strong conclusions.

Younger and more indebted households are likely to have to continue spending if the recovery is to be maintained. These groups should benefit from a pick-up in wage growth. For consumption to rise further relative to income, it may have to be groups for whom it fell the most who support that increase. There is, however, a question about whether it is right to assume that spending relative income should return to its pre-crisis level for all groups. For some groups it may not be. Credit conditions are likely to remain persistently tighter, encouraging a higher level of saving and some groups, such as the more indebted, could have been spending more than was sustainable over the longer term, implying that their saving may not fall as low as it was before 2007. But offsetting these factors that are likely to weigh against a further rise in consumption relative to income is the continued low level of interest rates still encouraging household to bring spending forward.

[8] Differences between responses to other consumer confidence survey questions by age are typically smaller because those questions ask about expectations for economic conditions at the aggregate rather than household level.