Economic Commentaries

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# The indebtedness of Swedish households – 2014 update

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**In May 2014 an Economic Commentary was published, which accounted for data from July 2010-July 2013 regarding the debt and income of individual households. In this Commentary, the analysis is extended to include recently gathered data for the period August 2013-July 2014. Generally, there are small changes between July 2013 and July 2014. For households with mortgages, the average debt-to-income ratio rose by approximately two percentage points, however, for households in higher income groups and in higher age groups it has increased more. The rates of repayment for individuals with mortgages were largely unchanged between the two periods of observation.**

In an Economic Commentary on household indebtedness published in May 2014, data was analysed regarding the debt and income of individual households attributable to the period July 2010-July 2013.[2] In this Commentary, the analysis is extended to include recently gathered data for the period August 2013-July 2014.

The material includes information on loans and earned income for all individuals with loans from Sweden's eight largest banks. Debt-free households are thus not included. The material consists of monthly observations between July 2010 and July 2014 and encompasses around four million adults linked to just shy of two million households. Out of these, around three million individuals and one and a half million households have mortgages. For a more detailed account of the data material, see Winstrand and Ölcer (2014). The basis for all charts in this presentation is available in Tables Appendix 1.

The results can be summarised into the following four points:

1. For households with mortgages, the average debt-to-income ratio rose from around 313 per cent in July 2013 to around 315 per cent in July 2014[3].
2. The debt-to-income ratio for households in higher income groups increased more than the debt-to-income ratio for households in lower income groups.
3. The average debt-to-income ratio increased slightly more for individuals in higher age groups than for individuals in lower age groups.
4. The rates of repayment for individuals with mortgages were largely unchanged between the periods of measurement (i.e. the period July 2013 to July 2014 compared with the period July 2012 to July 2013).

This Commentary includes debt-to-income for households with mortgages in different income groups in July 2014 and repayment rates for the period July 2013 to July 2014. These results are also published in Financial Stability Report 2014:2. The debt-to-income ratios in this Commentary are calculated only for indebted households, which imply that the levels cannot be compared with the aggregated debt-to-income ratio for all households in Sweden which was approximately 173 per cent in the third quarter of 2014.

## Indebtedness in various income and age groups

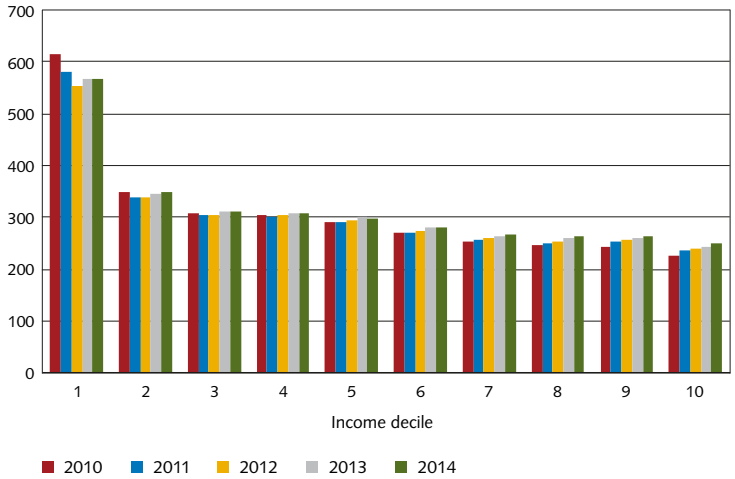
As a measure of indebtedness, the term "debt-to-income ratio" is used. The debt-to-income ratio is calculated as the debt of the individual or household in relation to disposable income. In order to study the average debt-to-income ratio in different income groups, we have divided *households* into ten deciles depending on income. Income group 1 is the tenth of households with the lowest incomes and income group 10 is the tenth with the highest incomes[4].

1. The authors would like to thank Martin W Johansson, Johan Molin, Jonas Niemeyer and Marianne Sterner for useful comments.
2. Winstrand, Jakob and Dilan Ölcer (2014), "*How indebted are Swedish households?*" Economic Commentary, Sveriges Riksbank No. 1, 2014.
3. See Financial Stability Report 2014:2.
4. Hence, households can belong to different income groups in different periods.

## The debt-to-income ratio is increasing more for high-income groups

Chart 1 shows the progression over time of the average debt-to-income ratio for households with mortgages in each income group[5]. The debt-to-income ratio tends overall to be somewhat higher for lower-income households. In July 2014 households in income group 2 had an average debt-to-income ratio of 347 per cent, while households in income group 10 had an average debt-to-income ratio of 251 per cent. During the period 2010 to 2014, the debt-to-income ratio increased however more in the higher income groups than in the lower ones. Between 2013 and 2014, the debt-to-income ratio increased by 0.4 and 2 percentage points in the second and third income group, respectively, and fell by 0.3 percentage points in the fourth income group, while it increased by 4, 6 and 8 percentage points in the eighth, ninth and tenth income group, respectively.

**Chart 1. Debt-to-income ratio for households with mortgages in different income groups**
Per cent




Note. Data is from July of each year. The average disposable income for households with mortgages for the five points in time were in the following ranges in each income decile; 1: SEK 104,527-SEK 120,858, 2: SEK 183,178-SEK 210,103, 3: SEK 232,326-SEK 265,534, 4: SEK 281,919-SEK 322,016, 5: SEK 331,717-SEK 379,038, 6: SEK 375,049-SEK 429,961, 7: SEK 416,486-SEK 479,226, 8: SEK 465,528-SEK 537,937, 9: SEK 540,980-SEK 626,746, 10: SEK 848,652-SEK 978,555. The debt-to-income ratio is calculated as the average debt-to-income ratio for households in each income decile.
Source: The Riksbank

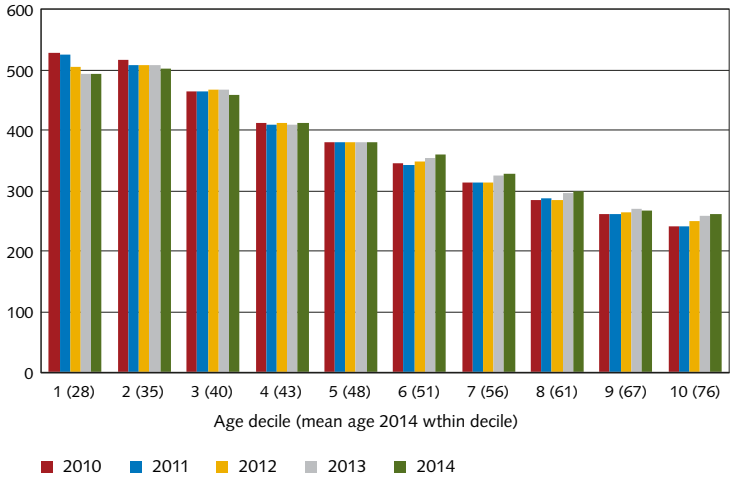
## The debt-to-income ratio is increasing more in higher age groups

We also have data regarding to the debt-to-income ratio at individual level. This data regarding individuals has been divided into ten deciles according to age. Age group 1 is the tenth of individuals who are youngest, while age group 10 is the tenth of individuals who are oldest[6].

Chart 2 shows the average debt-to-income ratio for individuals with mortgages in each age group. The debt-to-income ratio tends overall to be lower for the higher ages. In July 2014 the first age group had an average debt-to-income ratio of 493 per cent while the tenth age group had an average debt-to-income ratio of 261 per cent. The debt-to-income ratio for the higher age groups increased however between 2010 and 2014, while the opposite is the case for the lower age groups. Comparing the 2014 outcome with that of 2013, the debt-to-income ratio fell by 7 percentage points in both the second and third age groups, and increased by 3 percentage points in the fourth age group, while it increased by 6, 4 and 3 percentage points in the sixth, seventh and eighth age groups, respectively.

5. The high debt-to-income ratio in the lowest income group ought however to be interpreted with a degree of caution because this group includes households with highly variable income. For example, the group may include self-employed individuals who may have made a loss in a certain year or a large capital gain resulting in a high level of tax and who thus paid no income tax in that year. It can also contain households with a mortgage in Sweden, but which work in a different country and which do not have any earned income in Sweden.
6. Hence, individuals can belong to different age deciles in different periods.

**Chart 2. Debt-to-income ratio for individuals with mortgages in different age groups**
Per cent




Note. Data is from July of each year. The debt-to-income ratio is calculated as the average debt-to-income ratio for individuals in each age decile.
Source: The Riksbank

## Indebtedness in various regions

**Figure 1. Average debt-to-income ratio for households with mortgages in different municipalities**
Per cent

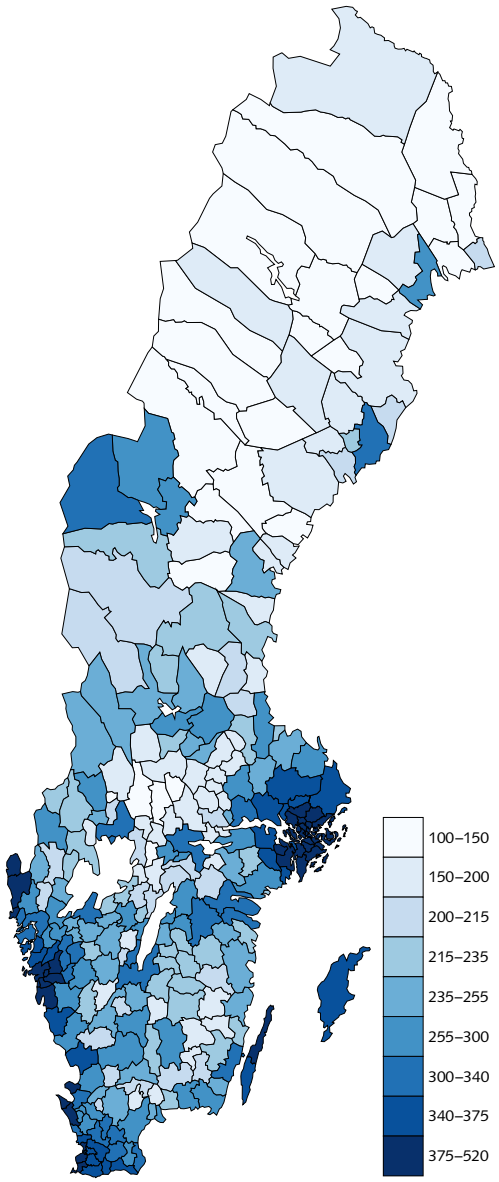



**Table 1. Municipalities with the highest and lowest debt-to-income ratios for households with mortgages.**
Per cent

**Highest debt-to-income ratio**

| MUNICIPALITY | DEBT-TO-INCOME RATIO |
|---|---|
| Vaxholm | 517 |
| Lidingö | 512 |
| Värmdö | 510 |
| Danderyd | 500 |
| Vellinge | 493 |
| Nacka | 492 |
| Sundbyberg | 491 |
| Solna | 488 |
| Ekerö | 457 |
| Stockholm | 455 |

**Lowest debt-to-income ratio**

| MUNICIPALITY | DEBT-TO-INCOME RATIO |
|---|---|
| Hällefors | 133 |
| Sollefteå | 132 |
| Älvsbyn | 128 |
| Åsele | 126 |
| Övertorneå | 124 |
| Malå | 122 |
| Dorotea | 120 |
| Norsjö | 117 |
| Överkalix | 114 |
| Arjeplog | 108 |

Note. Data from July 2014. The debt-to-income ratio is calculated as the average debt-to-income ratio for households with mortgages in each municipality.
Source: The Riksbank

Figure 1 shows the average debt-to-income ratio for households with mortgages in different Swedish municipalities. For all households with mortgages, the mean debt-to-income ratio is 315 per cent. Looking at the entire country, over half of municipalities have an average debt-to-income ratio above 240 per cent. One quarter of municipalities have a debt-to-income ratio below 200 per cent and one quarter have a debt-to-income ratio above 330 per cent. Table 1 shows the municipalities with the ten highest and ten lowest average debt-to-income ratios for households with mortgages.

## Change in debt

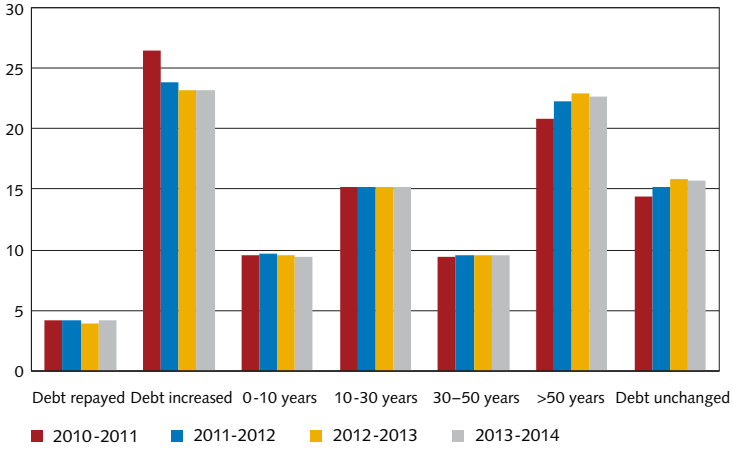
The data material does not encompass any information regarding actual amortisations and amortisation terms. In the analysis of changes in the debts of individuals, we therefore compare instead the debt balance in different periods. Then, we calculate how long it would take for each individual to repay his loan at the rate of repayment observed between the periods. The basis thus consists of net amortisations, i.e. amortisations minus newly granted loans, for individuals in the existing loan stock.

### Rates of repayment are basically unchanged

Chart 4 shows the breakdown of the repayment period for individuals with mortgages. If a comparison is made between 2012-2013 and 2013-2014, the share of individuals that repaid their debt increased by 0.4 percentage points. The share of individuals who increased their debt rose by 0.1 percentage points, while the share with a repayment period exceeding 50 years and the share with unchanged debt decreased by 0.1 percentage points each. The rate of repayment thus changed very little between the two latest periods.

By the request of Finansinspektionen, the Swedish Bankers' Association has recommended that the banks, as of the second half of 2014, provide all new mortgage customers with an individual amortisation plan. The extent to which this has affected their amortisations is hard to decipher from the statistics on which this Economic Commentary is based, because the data material only extends to July 2014. However, the recommendation only applies to new mortgage holders, so it will take a long time for it to have any major effects in the total stock of mortgage holders.

**Chart 3. Repayment period for individuals with mortgages**
Share in per cent




Note. The repayment period refers to the period it would take for an individual to repay his loan given the change in debt observed between the periods. 2010-2011 refers to the change between July 2010 and July 2011, 2011-2012 refers to the change between July 2011 and July 2012, 2012-2013 refers to the change between July 2012 and July 2013 and 2013-2014 refers to the change between July 2013 and July 2014.
Source: The Riksbank

## References:

*Financial Stability Report 2014:2*, Sveriges Riksbank.

Winstrand, Jakob and Dilan Ölcer (2014), "How indebted are Swedish households?" Economic Commentary, Sveriges Riksbank No. 1, 2014.