

# Measuring German household debt: financial accounts data and disaggregated survey data as complementary statistics<sup>1</sup>

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## 1. Household debt measured by financial accounts

### 1.1 Sources of debt

On the macro level debt of households is usually measured by financial accounts. Financial accounts are secondary statistics in so far as different available data sources are collected and put together. The situation may differ from country to country. German households mainly depend on MFI loans, about 90 % of all loans received are granted by banks. Other sources are insurance companies and financial corporations engaged in lending (the so called FCLs belong to the OFI sector according to ESA 95). According to balance of payment statistics a very small amount of debt comes from abroad. It is obvious that this coverage is not perfect: at moment we have no detailed information about loans granted by the government sector to households or about inter-household liabilities. Nevertheless our picture of debt seems to be complete and based on reliable statistics.

In this context it must be taken into account that the definition of the household sector is in line with ESA 95. Therefore self-employed persons or sole proprietorships and non-profit institutions serving households are included. Beside loans financial accounts show other liabilities (other accounts payable) which shall in principle include trade credit, unpaid taxes etc. As no direct information is available, figures are compiled as residuals or as accumulated transaction residuals in the case of outstanding amounts. A very important advantage of financial accounts data is that the frequency of household debt is quarterly. German quarterly data range back to 1991. Yearly data are available back to 1950, but the time series from 1950 to 1990 are not consistent with ESA 95. Before 1991 the household sector did not include housing loans and the liabilities of sole proprietorships. According to ESA 79 both items had been attributed to the enterprise sector.<sup>3</sup>

### 1.2 Other statistical breakdowns

Beside the complete coverage of household debt data on maturity and purpose are very important for economic analysis. We are able to differentiate between short-term maturity (below 1 year) and longer-term original maturity. (However, no information on residual maturity is available.) Short-term loans are of minor importance. More than 90 % of loans are longer-term. An explanation for this maturity structure arises from the breakdown according to the purpose or use of loans. About two third of loans are mortgage or housing loans. And in Germany housing loans usually are longer-term loans. Even consumer loans are to a

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<sup>1</sup> This article represents the authors' personal opinion and does not necessarily reflect the views of the Deutsche Bundesbank.

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<sup>3</sup> For the implications of the change from ESA 79 to ESA 95 see Deutsche Bundesbank (2006a, pp 9-12).

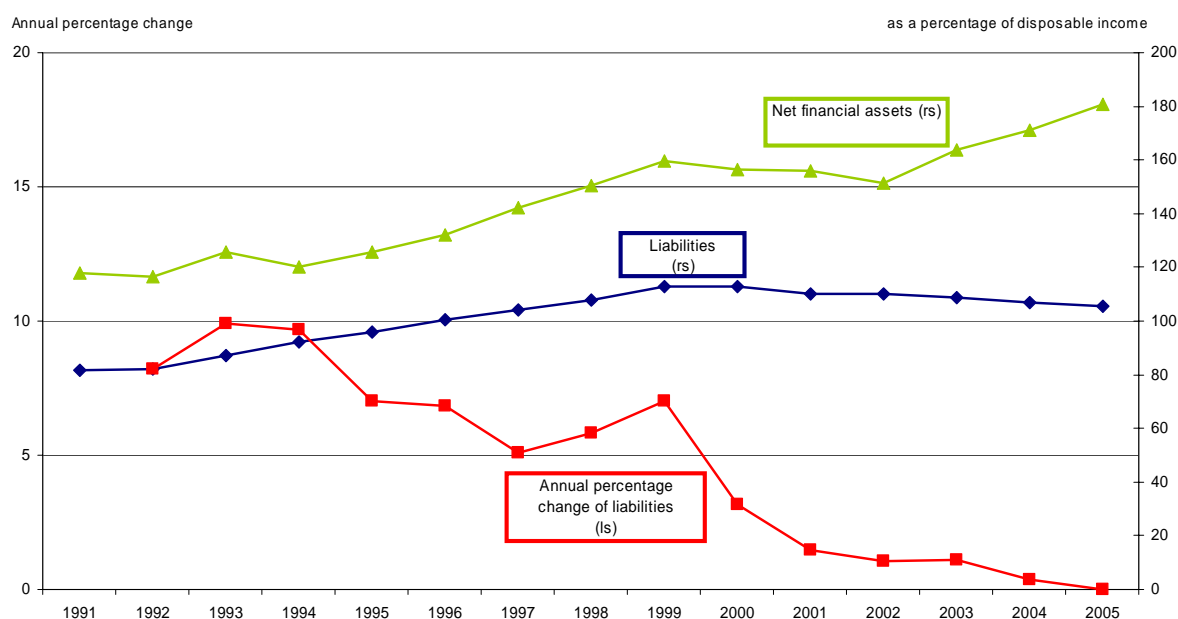
certain extent longer-term debt. Finally we can identify entrepreneurial loans granted to sole proprietorships. With respect to the interest rate contracts with variable interest rates, fixed interest rates or interest rate-cap agreements exist: but there is no detailed information about the relevance of each alternative. For housing loans the most usual agreement is a fixed interest rate contract for a period of 10 years.

### 1.3 Debt indicators

When analysing the macro data we want to start with a snapshot for 2005 (see table 1).<sup>4</sup> Until the end of 2005 German households accumulated debt of €1,569 billion or €40,000 per household. Only one percent resulted from non-profit institutions. The debt ratio of 105 % of disposable income is relatively high compared to other EU countries. 67 % of all loans were housing loans, 20 % entrepreneurial loans and the remaining 13 % consumer loans. Short-term loans amounted to €86 billion only. The interest burden defined as interest expenditure in relation to disposable income was 4 % in 2005.

### 1.4 Development of debt from 1991 to 2005

To gain a better understanding of the 2005 figures we want to explain the debt development of the last 15 years. In 1991 total household debt was about €800 billion, nearly half of the 2005 amount. From 1991 to 1999 there was a strong increase of debt (see figure). At that time the yearly growth rates ranged between 5 % and 10 %. Afterwards the growth was significantly lower. In 2004 and 2005 it came down to about zero. The development of the debt ratio underlines this picture. From 1991 to 1999 the debt ratio rose from about 82 % to 113 % of disposable income, from then until 2005 the ratio decreased by 7 percentage points. This development is really different from a few other EU countries. What were the reasons for the German situation? In short, there were two main factors: German unification in connection with housing activities. The demand for housing loans was much higher than for consumer and business loans. After 2000 private housing investment decreased and resulted in a very low demand for housing loans. Contrary to housing loans the stock of entrepreneurial loans even declined, whilst consumer loans have remained more or less constant since 2000.



<sup>4</sup> The yearly results for 2005 are discussed in detail in Deutsche Bundesbank (2006b).

Different developments influenced the indicator interest burden. In the beginning of the nineties interest burden<sup>5</sup> exceeded 5 % of disposable income. At that time the market rates were very high. From 1995 to 2000 the ratio was about 5½ % in spite of the described increase of debt: but the decrease of market rates due to the start of EMU more than compensated the dynamic demand for loans. From 2002 onwards, a further decrease could be observed from 5 % to 4 % in 2005 due to a modest demand for loans and a continued downwards trend of market rates.

### **1.5 Debt-to-assets ratios**

An analysis of the debt situation is not complete if the asset side is not taken into account. For instance, the judgement of an increase of debt also depends on the financial and fixed assets as they can serve as collateral for loans.<sup>6</sup> German households are traditionally net creditors vis-a-vis other sectors. Their assets were much higher than the stock of debt. In 2005 financial assets reached roughly €4,300 billion, fixed assets (housing wealth, machinery and equipment) were at €4,800 billion. Net wealth (total assets minus debt) amounted to 500 % of disposable income (see table 1). On the basis of these aggregated figures (and also in international comparison) the financial position of households seemed to be very satisfactory. This finding is also supported by the development of various debt-to-asset ratios over the 1991-2005 period. In spite of the rapid increase of debt from 1991 to 1999 the ratio of debt-to-financial assets remained relatively stable at 42 %. An important role played financial investment respectively high saving activities. From 2002 to 2005 the ratio decreased to 37 % due to the modest demand for loans and continued saving. The corresponding ratio of debt-to-total assets was only half as high (18 %) in 2005 and more or less constant over the last 10 years. As described above in the last five years housing investment was very low. At the same time the evolution of house prices was very flat, even slightly decreasing. Both resulted from the fact that the debt to total asset ratio did not show a similar improvement as the debt to financial assets ratio.

### **1.6 Drawback of debt measured by financial accounts**

As described above financial accounts give a very detailed overview over the debt situation of German households. The main advantages are complete coverage and quarterly frequency. But due to the nature of a macro-oriented statistics only aggregated data or averages per household can be compiled. No information about the distribution of debt with respect to different groups of households is available. This is a very severe restriction for economic analysis. To fill the gap survey data have to be taken into account. In Germany several disaggregated data sources exist. The most prominent and detailed survey is the Income and Expenditure Survey (EVS) of the Federal Statistical Office (see annex). The main results with respect to household debt are discussed in the next section.

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<sup>5</sup> Alternative indicators of interest burden as well as debt service (total repayments and interest payments) burden for the year 2003 were calculated on the basis of the Income and Expenditure Survey (EVS). These indicators are available for the German households as a whole and the indebted German households as well as according to the monthly household net income. The indicators can be provided by the authors.

<sup>6</sup> See also the discussion in Remsperger and Stöss (2004).

## **2. Disaggregated survey data and distribution of debt**

### **2.1 Consumer loans**

The distribution of average consumer loans according to the Income and Consumption Survey (EVS) of the Federal Statistical Office is analysed with respect to household size, social status of the main income earner, monthly household net income and the age of the main income earner. For each of these four aspects the distribution of average consumer loans is compared with the conditional distribution which is the distribution given details about the size of consumer loans. The difference between these distributions is significant as shown in tables 2 to 5 in the column "Households total". The average consumer loan per household amounts to €1,400 while the conditional average consumer loan per household is equal to €8,800, that is more than six times the average of the totality of households. This big difference is reflected by the fact that the share of households with details about the size of consumer loans is only 16 %.

#### **2.1.1 Consumer loans according to household size**

The distribution of average consumer loans of German households according to the household size is shown in table 2. In the unconditional distribution the value for households with three or more persons is about twice as high as the value for households with one or two persons, which might be explained by higher consumption expenditures of households with children. Similar to the unconditional distribution, in the conditional distribution average consumer loans per household increase with the household size. The variance with regard to the household size is more than three times higher than for the unconditional distribution.

#### **2.1.2 Consumer loans according to the social status of the main income earner**

Table 3 describes the distribution of consumer loans of German households according to the social status of the main income earner. In both kinds of distributions the average consumer loan per household is highest for the self-employed and lowest for the non(-gainfully)-employed. This feature could be explained by liquidity constraints which might be binding for the latter group. Of course, liquidity constraints are more related to household income, which shall be investigated in the next subsection. The variance with regard to the social status of the main income earner in the conditional distribution is ten times higher than that of the unconditional distribution. The percentage share of the average consumer loan per household in the average consumer loan per household with details about the size of consumer loans is much higher for blue-collar workers (27 %) than for the other groups. This is an indication of a strong propensity to consume among blue-collar workers.

#### **2.1.3 Consumer loans according to monthly household net income**

The distribution of average consumer loans of German households according to monthly household net income is described in table 4. For both kinds of distributions the average consumer loan per household increases in monthly household net income. Average consumer loans significantly increase at the income class boundaries for very low income (€900), middle income (€2,600) and high income (€5,000). A possible explanation for this are liquidity constraints. The higher the income the less binding are liquidity constraints. Accordingly, the percentage share of the average consumer loan per household in the average consumer loan per household with details about the size of consumer loans is especially low for household with very low income (below €900). The variance of the average consumer loan with regard to monthly household net income is almost twenty times higher for the conditional distribution than for the unconditional one. This shows that according to the conditional distribution household debt is distributed rather unequally over the income

range. Of course, this alone is not a suitable measure of the credit risk related to consumer loans. In order to assess this risk, household wealth should also be taken into account.

#### **2.1.4 Consumer loans according to the age of the main income earner**

Table 5 shows the distribution of consumer loans of German households according to the age of the main income earner. The path of consumer loans is hump-shaped with a peak at the cohort above the age of 35 and below the age of 45 in the unconditional distribution and a peak at the cohort above the age of 45 and below the age of 55 in the conditional distribution. The hump-shaped paths might be explained by the hump-shaped path of income of German households (see Börsch-Supan, Reil-Held, Rodepeter, Schnabel and Winter (1999)) in connection with the fact, that liquidity constraints decrease in income. Another reason might be the high consumption of young households owing to the setting up of a home and getting married and having a family. In line with this, the number of (projected) households with details about the size of consumer loans reaches a maximum at the cohort above the age of 35 and below the age of 45. Moreover, the percentage share of the average consumer loan per household in the average consumer loan per household with details about the size of consumer loans is the highest for the cohorts above the age of 25 and below the age of 45. The strong decline in consumer loans for households with a main income earner above the age of 55 is consistent with the lower consumption needs of elderly persons. Accordingly, the percentage share of the average consumer loan per household in the average consumer loan per household with details about the size of consumer loans is much lower for the cohorts above the age of 65 than for the other cohorts.

## **2.2 Mortgage loans**

The distribution of average (remaining) housing or mortgage loans according to the EVS is analysed as in section 2.1 with respect to household size, social status of the main income earner, monthly household net income and the age of the main income earner.<sup>7</sup> Again, for each of these four aspects the distribution of average mortgage loans is compared with the conditional distribution which is the distribution given details about the size of mortgage loans. The difference between these distributions is significant as shown in tables 6 to 9 in the column “Households total”. The average mortgage loan per household amounts to €25,600 while the conditional average mortgage loan per household is equal to €97,700, that is four times the average of the totality of households. This big difference is reflected by the fact that the share of households with details about the size of mortgage loans is only 26 %. However, this share is 10 percentage points higher than the corresponding share of consumer loans.

### **2.2.1 Mortgage loans according to household size**

The distribution of average mortgage loans of German households according to the household size is shown in table 6. As to be expected, the average mortgage loan per household increases in the household size but the increase is much stronger in the unconditional distribution. Correspondingly, the variance (with regard to the household size) of the average mortgage loan per household is much lower in the conditional distribution than in the unconditional distribution. The percentage share of the average mortgage loan per household in the average mortgage loan per household with details about the size of mortgage loans rises with the household size. For households with more than 3 persons this percentage share amounts to more than 50 %.

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<sup>7</sup> In the following the term “mortgage loan” is used for “remaining mortgage loan”.

### **2.2.2 Mortgage loans according to the social status of the main income earner**

Table 7 shows the distribution of mortgage loans of German households according to the social status of the main income earner. As in the case of consumer loans the average mortgage loan per household is highest for the self-employed and lowest for the non(-gainfully)-employed. The percentage share of the average mortgage loan per household in the average mortgage loan per household with details about the size of mortgage loans is very high (about 50 %) for the self-employed and the civil servants. The corresponding share of the unemployed and non(-gainfully)-employed is much lower (12 %). The difference between these shares can be explained by liquidity constraints or income differences in the case of the unemployed and by the fact that the non(-gainfully)-employed mainly comprise pensioners. The variance (with regard to the social status of the main income earner) in the conditional distribution is about three times higher than the corresponding variance in the unconditional distribution. However, this difference is much lower than in the case of consumer loans.

### **2.2.3 Mortgage loans according to monthly household net income**

The distribution of average mortgage loans of German households according to household net income is shown in table 8. In the unconditional distribution the average mortgage loan per household significantly increases in monthly household net income. In the conditional distribution an increase can only be observed in the lower income range (less than €1,500) and the upper income ranges (more than €2,600). The increase (in absolute terms) is highest in the highest income range (€5,000 to €18,000). A possible explanation for this are liquidity constraints in connection with downpayment ratios. In Germany the average downpayment ratio amounts to about 30 %. The higher the income the less binding are these liquidity constraints.<sup>8</sup> Accordingly, the percentage share of the average mortgage loan per household in the average mortgage loan per household with details about the size of mortgage loans is especially low for household with low income (below €1,500). It rises significantly for higher incomes and amounts to 60 % and more for households with a monthly net income of more than €3,600. The variance (with regard to monthly household net income) in the conditional distribution is about two times higher than the corresponding variance in the unconditional distribution. This discrepancy is much higher for consumer loans.

### **2.2.4 Mortgage loans according to the age of the main income earner**

Table 9 shows the distribution of mortgage loans of German households according to the age of the main income earner. As in the case of consumer loans the path of mortgage loans is hump-shaped. In both distributions the peak is at the cohort above the age of 35 and below the age of 45. Again, the hump-shaped paths might be explained by the hump-shaped path of income of German households (see Börsch-Supan, Reil-Held, Rodepeter, Schnabel and Winter (1999)) in connection with the fact, that liquidity constraints decrease in income. In addition the demand of young households for real estate is especially high owing to having a family. In line with this, the number of (projected) households with details about the size of mortgage loans reaches a maximum at the cohort above the age of 35 and below the age of 45. Moreover, the percentage share of the average mortgage loan per household in the average mortgage loan per household with details about the size of mortgage loans is the highest for the cohorts above the age of 35 and below the age of 45. This share clearly declines for households with a main income earner above the age of 65.

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<sup>8</sup> Low income households hardly accumulate own funds. According to the EVS their saving ratios are small or negative.

### 3. Final remarks

The main results from financial accounts of the Bundesbank are:

- 1991 to 1999: strong increase of debt mainly due to the dynamic demand for housing loans.
- Since 2000 significant decrease of the debt ratio (contrary to other EU countries).
- Housing loans are by far the most important position of household debt.
- Financial situation: stable or even improving debt-to-asset ratios, low interest burden.

The main results from EVS of the Statistical Office are:

- For both consumer loans and mortgage loans the average loan per household with details about loans is much higher than the corresponding average from the unconditional distribution.
- Average consumer loans increase in monthly household net income. For mortgage loans this applies to the unconditional distribution, while in the conditional distribution an increase can only be observed in the lower and the upper range of the distribution.
- The share of households with details about the size of mortgage loans strongly increases in monthly household net income, which might be due to the fact that liquidity constraints (due to the downpayment ratios required by banks) become less binding as income rises.

To conclude, macro and micro data sets provide very fruitful and detailed information for the analysis of German household debt. A crucial question is how to combine these data. On the asset side huge discrepancies can be found between financial accounts and survey data (see annex). But what is surprising for the average level of debt is the fact that the difference is much smaller. Household debt mainly consists of mortgage debt for which the aggregate data of the EVS (contrary to GSOEP) are very similar to those of financial accounts. Concerning consumer loans the GSOEP figures are higher than EVS data. As a whole financial accounts and EVS respectively GSOEP seem to be complementary statistics for the analysis of German household debt.

## **Annex: Comparison of EVS, GSOEP and financial accounts**

Household debt of German households is analysed with data from the Income and Consumption Survey (EVS) of the Federal Statistical Office for 2003. This is the German equivalent of the U.S. Consumer Expenditure Survey (CEX). It consists of repeated cross-sections based on a quinquennial survey conducted by the Federal Statistical Office. The EVS is the best microdata source for analyses of wealth data because of the big number of recorded households (about 58,000). Another relevant household survey is the German Socio-Economic Panel Study (GSOEP) of the German Institute of Economic Research (DIW). The GSOEP is an annual panel survey that started in 1984. The sample contains about 12,000 households. The GSOEP is similar to the U.S. Panel Study on Income Dynamics (PSID). (A detailed comparison between the EVS and the GSOEP can be found in Becker, Frick, Grabka, Krause and Wagner (2003).)

In the following these data sources shall be compared with financial accounts (of the Deutsche Bundesbank). Table 10 contains net financial wealth and its components according to these data sources. The data in EVS and GSOEP are projected.

Financial wealth is much higher in the financial accounts than in the microdata sets. This can be explained by

- Reporting differences: There is an aversion or inability among households to report or calculate their financial wealth correctly. For example, the discrepancy between financial accounts and EVS wealth in securities (bonds, shares, other equity and mutual fund shares) is especially big. Another indication of the difficulties in recording financial wealth in microdata surveys is the big (and not plausible) share of households that supposedly do not possess any financial assets (about 10 % in EVS and more than 40 % in GSOEP).
- Censoring: Due to the lack of a sufficient number of “rich” participants the EVS does not take into account households with a monthly net income of more than €18,000. Schüssler, Lang and Buslei (2000) estimate the share of financial wealth not reported due to censoring in EVS financial wealth to be about 10 %. This corresponds to an underreporting of about €150 billion in the EVS 2003.
- Differences in the definition of financial wealth: Financial wealth is more comprehensive in the financial accounts than in GSOEP and EVS. The following items are included only in the financial accounts: currency and transferable deposits, certain claims on insurance corporations (for example health insurance and private pension funds) as well as claims from company pension commitments. All in all, these items add up to about €950 billion, which explains almost half of the difference between financial wealth in the financial accounts and EVS.
- Differences in sector classification: In contrast to the microdata sets non-profit institutions serving households are part of households in financial accounts. At the end of 2002 financial wealth of non-profit institutions amounted to about €150 billion.

An important finding is that the difference between financial accounts data and the household surveys is much smaller for household debt than for financial assets.



Table 1  
Debt of German households<sup>1</sup>

| Item  | 1991                                 | 1995   | 1999   | 2000   | 2002   | 2004   | 2005   |
|---|--------------------------------------|--------|--------|--------|--------|--------|--------|
|   | in € billion                         |        |        |        |        |        |        |
| <b>Liabilities</b>  |                                      |        |        |        |        |        |        |
| Loans   | 815                                  | 1,138  | 1,453  | 1,501  | 1,538  | 1,558  | 1,557  |
| Short-term loans  | 91                                   | 104    | 112    | 114    | 107    | 90     | 86     |
| Longer-term loans   | 724                                  | 1,034  | 1,341  | 1,387  | 1,432  | 1,467  | 1,471  |
| <i>of which:</i> Bank loans   | 761                                  | 1,066  | 1,368  | 1,412  | 1,448  | 1,466  | 1,467  |
| Other liabilities   | 9                                    | 12     | 9      | 8      | 8      | 11     | 12     |
| Total   | 824                                  | 1,150  | 1,462  | 1,508  | 1,547  | 1,569  | 1,569  |
| <i>Memo item:</i> Non-profit institutions serving households          | 14                                   | 14     | 15     | 16     | 16     | 15     | 16     |
| Annual percentage change of liabilities                               |                                      | 7.0    | 7.0    | 3.2    | 1.1    | 0.4    | 0.0    |
|   | in € per household                   |        |        |        |        |        |        |
|   | 23,400                               | 31,100 | 38,700 | 39,600 | 39,900 | 40,100 | 40,000 |
|   | as a percentage of disposable income |        |        |        |        |        |        |
|   | 81.6                                 | 95.9   | 112.7  | 112.8  | 110.0  | 107.0  | 105.4  |
| <b>Loans by purpose</b>   | in € billion                         |        |        |        |        |        |        |
| Consumer loans  | 131                                  | 165    | 199    | 207    | 204    | 206    | 206    |
| Mortgage loans  | 492                                  | 697    | 913    | 947    | 1,002  | 1,029  | 1,039  |
| Entrepreneurial loans   | 191                                  | 275    | 341    | 346    | 333    | 321    | 311    |
| Mortgage loans<br>(in % of loans total)                               | 60                                   | 61     | 63     | 63     | 65     | 66     | 67     |
| <b>Interest expenditure</b><br>(as a percentage of disposable income) | 5.8                                  | 5.8    | 5.0    | 5.5    | 5.0    | 4.2    | 4.0    |
| <b>Net financial assets</b><br>(in € billion)                         | 1,190                                | 1,508  | 2,071  | 2,094  | 2,126  | 2,509  | 2,691  |
|   | in € per household                   |        |        |        |        |        |        |
|   | 33,700                               | 40,900 | 54,800 | 54,900 | 54,900 | 64,100 | 68,500 |
|   | as a percentage of disposable income |        |        |        |        |        |        |
|   | 117.9                                | 125.8  | 159.6  | 156.6  | 151.2  | 171.1  | 180.8  |

<sup>1</sup> Definition of the household sector according to ESA 95.

Table 1 (cont)

**Debt of German households**

| Item   | 1991                                 | 1995  | 1999  | 2000  | 2002  | 2004  | 2005  |
|--|--------------------------------------|-------|-------|-------|-------|-------|-------|
| <b>Net assets</b> <sup>2</sup> (in € billion)            | 4,538                                | 5,630 | 6,586 | 6,680 | 6,869 | 7,292 | 7,491 |
|  | as a percentage of disposable income |       |       |       |       |       |       |
|  | 449                                  | 470   | 508   | 499   | 489   | 497   | 503   |
| <b>Liabilities</b> (as a percentage of financial assets) | 41                                   | 43    | 41    | 42    | 42    | 38    | 37    |
| <b>Liabilities</b> (as a percentage of total assets)     | 15                                   | 17    | 18    | 18    | 18    | 18    | 17    |

Source: Financial Accounts, Deutsche Bundesbank.

<sup>2</sup> Financial assets plus fixed assets minus debt.

Table 2

**Consumer loans of German households  
according to the household size**

|   | Households<br>total | Of which with ... person(s) |        |       |       |               |
|---|---------------------|-----------------------------|--------|-------|-------|---------------|
|   |                     | 1                           | 2      | 3     | 4     | 5 and<br>more |
| Recorded households<br>(number)   | 58,309              | 14,056                      | 21,888 | 9,439 | 9,237 | 3,689         |
| Projected households (1000)   | 37,931              | 13,733                      | 12,790 | 5,637 | 4,306 | 1,464         |
| Projected households with<br>details about the size of<br>(positive) consumer loans<br>(1000)                 | 5,940               | 1,662                       | 1,842  | 1,267 | 892   | 277           |
| Average consumer loan per<br>household (€ 100)  | 14                  | 9                           | 12     | 22    | 20    | 20            |
| Average consumer loan per<br>household with details about<br>the size of (positive)<br>consumer loans (€ 100) | 88                  | 77                          | 84     | 97    | 97    | 106           |
| Variance <sup>1</sup>   | 25                  |                             |        |       |       |               |
| Conditional variance <sup>2</sup>   | 83                  |                             |        |       |       |               |
| Percentage share of the<br>unconditional average<br>consumer loan <sup>3</sup>                                | 16                  | 12                          | 14     | 23    | 21    | 19            |

Source: Income and Expenditure Survey 2003 (EVS 2003) of the Federal Statistical Office and own calculations.

<sup>1</sup> Variance (with regard to the household size) of the average consumer loan per household.

<sup>2</sup> Variance (with regard to the household size) of the average consumer loan per household with details about the size of consumer loans.

<sup>3</sup> Percentage share of the average consumer loan (per household) in the average consumer loan (per household) with details about the size of consumer loans.

Table 3

**Consumer loans of German households  
according to the social status of the main income earner**

|  | Households<br>total | Of which according to the<br>social status of the main income earner |                  |                            |                           |                 |   |
|--|---------------------|--|------------------|----------------------------|---------------------------|-----------------|---|
|  |                     | self-<br>employed  | civil<br>servant | white-<br>collar<br>worker | blue-<br>collar<br>worker | un-<br>employed | non(-<br>gainfully)-<br>employed <sup>4</sup> |
| Recorded households (number)   | 58,309              | 4,062  | 5,913            | 21,177                     | 7,376                     | 3,177           | 16,604  |
| Projected households (1000)  | 37,931              | 2,684  | 1,621            | 10,780                     | 7,043                     | 2,261           | 13,541  |
| Projected households with details about the size of (positive) consumer loans (1000)                 | 5,940               | 394  | 312              | 2,102                      | 1,848                     | 375             | 909   |
| Average consumer loan per household (€ 100)  | 14                  | 24   | 21               | 16                         | 22                        | 14              | 5   |
| Average consumer loan per household with details about the size of (positive) consumer loans (€ 100) | 88                  | 165  | 110              | 83                         | 83                        | 84              | 69  |
| Variance <sup>1</sup>  | 51                  |  |                  |                            |                           |                 |   |
| Conditional variance <sup>2</sup>  | 492                 |  |                  |                            |                           |                 |   |
| Percentage share of the unconditional average consumer loan <sup>3</sup>                             | 16                  | 15   | 19               | 19                         | 27                        | 17              | 7   |

Source: Income and Expenditure Survey 2003 (EVS 2003) of the Federal Statistical Office and own calculations.

<sup>1</sup> Variance (with regard to the household size) of the average consumer loan per household.

<sup>2</sup> Variance (with regard to the household size) of the average consumer loan per household with details about the size of consumer loans.

<sup>3</sup> Percentage share of the average consumer loan (per household) in the average consumer loan (per household) with details about the size of consumer loans.

<sup>4</sup> Mainly pensioners.

Table 4

**Consumer loans of German households  
according to monthly household net income**

|  | Households total | Of which according to the monthly household net income (€) |           |             |             |             |             |             |              |
|--|------------------|--|-----------|-------------|-------------|-------------|-------------|-------------|--------------|
|  |                  | below 900  | 900–1,300 | 1,300–1,500 | 1,500–2,000 | 2,000–2,600 | 2,600–3,600 | 3,600–5,000 | 5,000–18,000 |
| Recorded households (number)   | 58,309           | 4,068  | 5,631     | 3,642       | 8,705       | 11,431      | 13,260      | 7,646       | 3,416        |
| Projected households (1000)  | 37,931           | 5,509  | 6,432     | 3,375       | 6,713       | 6,121       | 5,421       | 2,681       | 1,463        |
| Projected households with details about the size of (positive) consumer loans (1000)                 | 5,940            | 477  | 895       | 520         | 1,152       | 1,158       | 1,079       | 452         | 201          |
| Average consumer loan per household (€ 100)  | 14               | 5  | 10        | 11          | 14          | 16          | 21          | 20          | 25           |
| Average consumer loan per household with details about the size of (positive) consumer loans (€ 100) | 88               | 53   | 72        | 70          | 84          | 83          | 103         | 121         | 179          |
| Variance <sup>1</sup>  | 30               |  |           |             |             |             |             |             |              |
| Conditional variance <sup>2</sup>  | 577              |  |           |             |             |             |             |             |              |
| Percentage share of the unconditional average consumer loan <sup>3</sup>                             | 16               | 9  | 14        | 16          | 17          | 19          | 20          | 17          | 14           |

Source: Income and Expenditure Survey 2003 (EVS 2003) of the Federal Statistical Office and own calculations.

<sup>1</sup> Variance (with regard to the household size) of the average consumer loan per household.

<sup>2</sup> Variance (with regard to the household size) of the average consumer loan per household with details about the size of consumer loans.

<sup>3</sup> Percentage share of the average consumer loan (per household) in the average consumer loan (per household) with details about the size of consumer loans.

Table 5

**Consumer loans of German households  
according to the age of the main income earner**

|  | Households total | Of which according to the age of the main income earner |       |        |        |        |       |       |          |
|--|------------------|---|-------|--------|--------|--------|-------|-------|----------|
|  |                  | below 25  | 25–35 | 35–45  | 45–55  | 55–65  | 65–70 | 70–80 | above 80 |
| Recorded households (number)   | 58,309           | 1,247   | 7,004 | 15,294 | 13,491 | 10,070 | 4,652 | 5,108 | 1,443    |
| Projected households (1000)  | 37,931           | 1,152   | 4,581 | 8,635  | 7,609  | 6,177  | 3,048 | 5,126 | 1,604    |
| Projected households with details about the size of (positive) consumer loans (1000)                 | 5,940            | 157   | 1,053 | 1,978  | 1,535  | 759    | 230   | 205   | /        |
| Average consumer loan per household (€ 100)  | 14               | 6   | 19    | 21     | 19     | 11     | 6     | 3     | /        |
| Average consumer loan per household with details about the size of (positive) consumer loans (€ 100) | 88               | 41  | 81    | 92     | 96     | 87     | 81    | 69    | /        |
| Percentage share of the unconditional average consumer loan <sup>1</sup>                             | 16               | 15  | 23    | 23     | 20     | 13     | 7     | 4     | /        |

Source: Income and Expenditure Survey 2003 (EVS 2003) of the Federal Statistical Office and own calculations.

/: no information available due to the lack of a sufficient number of recorded households.

<sup>1</sup> Percentage share of the average consumer loan (per household) in the average consumer loan (per household) with details about the size of consumer loans.

Table 6

**Remaining mortgage loans of German households  
according to the household size**

|  | Households<br>total | Of which with ... person(s) |        |       |       |               |
|--|---------------------|-----------------------------|--------|-------|-------|---------------|
|  |                     | 1                           | 2      | 3     | 4     | 5 and<br>more |
| Recorded households<br>(number)  | 58,309              | 14,056                      | 21,888 | 9,439 | 9,237 | 3,689         |
| Projected households (1000)  | 37,931              | 13,733                      | 12,790 | 5,637 | 4,306 | 1,464         |
| Projected households with<br>details about the size of<br>(positive) remaining<br>mortgage loans (1000)                              | 9,940               | 1,657                       | 3,043  | 2,145 | 2,229 | 867           |
| Average remaining mortgage<br>loan per household (€ 100)   | 256                 | 101                         | 206    | 377   | 577   | 732           |
| Average remaining mortgage<br>loan per household with<br>details about the size of<br>(positive) remaining<br>mortgage loans (€ 100) | 977                 | 838                         | 867    | 991   | 1,114 | 1,238         |
| Variance <sup>1</sup>  | 32,160              |                             |        |       |       |               |
| Conditional variance <sup>2</sup>  | 17,118              |                             |        |       |       |               |
| Percentage share of the<br>unconditional average<br>mortgage loan <sup>3</sup>   | 26                  | 12                          | 24     | 38    | 52    | 59            |

Source: Income and Expenditure Survey 2003 (EVS 2003) of the Federal Statistical Office and own calculations.

<sup>1</sup> Variance (with regard to the household size) of the average mortgage loan per household.

<sup>2</sup> Variance (with regard to the household size) of the average mortgage loan per household with details about the size of mortgage loans.

<sup>3</sup> Percentage share of the average mortgage loan (per household) in the average mortgage loan (per household) with details about the size of mortgage loans.

Table 7

**Remaining mortgage loans of German households  
according to the social status of the main income earner**

|  | Households<br>total | Of which according to the<br>social status of the main income earner |                  |                            |                           |                 |   |
|--|---------------------|--|------------------|----------------------------|---------------------------|-----------------|---|
|  |                     | self-<br>employed  | civil<br>servant | white-<br>collar<br>worker | blue-<br>collar<br>worker | un-<br>employed | non(-<br>gainfully)-<br>employed <sup>4</sup> |
| Recorded households (number)   | 58,309              | 4,062  | 5,913            | 21,177                     | 7,376                     | 3,177           | 16,604  |
| Projected households (1000)  | 37,931              | 2,684  | 1,621            | 10,780                     | 7,043                     | 2,261           | 13,541  |
| Projected households with details about the size of (positive) remaining mortgage loans (1000)                           | 9,940               | 1,252  | 819              | 3,869                      | 2,146                     | 266             | 1,589   |
| Average remaining mortgage loan per household (€ 100)  | 256                 | 839  | 482              | 367                        | 231                       | 78              | 67  |
| Average remaining mortgage loan per household with details about the size of (positive) remaining mortgage loans (€ 100) | 977                 | 1,799  | 955              | 1,023                      | 757                       | 662             | 575   |
| Variance <sup>1</sup>  | 44,492              |  |                  |                            |                           |                 |   |
| Conditional variance <sup>2</sup>  | 124,908             |  |                  |                            |                           |                 |   |
| Percentage share of the unconditional average mortgage loan <sup>3</sup>   | 26                  | 47   | 50               | 36                         | 31                        | 12              | 12  |

Source: Income and Expenditure Survey 2003 (EVS 2003) of the Federal Statistical Office and own calculations.

<sup>1</sup> Variance (with regard to the household size) of the average mortgage loan per household.

<sup>2</sup> Variance (with regard to the household size) of the average mortgage loan per household with details about the size of mortgage loans.

<sup>3</sup> Percentage share of the average mortgage loan (per household) in the average mortgage loan (per household) with details about the size of mortgage loans.

<sup>4</sup> Mainly pensioners.



Table 8

**Remaining mortgage loans of German households  
according to monthly household net income**

|  | Households total | Of which according to the monthly household net income (€) |           |             |             |             |             |             |              |
|--|------------------|--|-----------|-------------|-------------|-------------|-------------|-------------|--------------|
|  |                  | below 900  | 900–1,300 | 1,300–1,500 | 1,500–2,000 | 2,000–2,600 | 2,600–3,600 | 3,600–5,000 | 5,000–18,000 |
| Recorded households (number)   | 58,309           | 4,068  | 5,631     | 3,642       | 8,705       | 11,431      | 13,260      | 7,646       | 3,416        |
| Projected households (1000)  | 37,931           | 5,509  | 6,432     | 3,375       | 6,713       | 6,121       | 5,421       | 2,681       | 1,463        |
| Projected households with details about the size of (positive) remaining mortgage loans (1000)                           | 9,940            | 225  | 564       | 464         | 1,441       | 2,028       | 2,538       | 1,619       | 987          |
| Average remaining mortgage loan per household (€ 100)  | 256              | 19   | 44        | 111         | 143         | 256         | 433         | 734         | 1,392        |
| Average remaining mortgage loan per household with details about the size of (positive) remaining mortgage loans (€ 100) | 977              | 456  | 500       | 807         | 668         | 774         | 925         | 1,215       | 2,063        |
| Variance <sup>1</sup>  | 90,311           |  |           |             |             |             |             |             |              |
| Conditional variance <sup>2</sup>  | 169,678          |  |           |             |             |             |             |             |              |
| Percentage share of the unconditional average mortgage loan <sup>3</sup>   | 26               | 4  | 9         | 14          | 21          | 33          | 47          | 60          | 67           |

Source: Income and Expenditure Survey 2003 (EVS 2003) of the Federal Statistical Office and own calculations.

<sup>1</sup> Variance (with regard to the household size) of the average mortgage loan per household.

<sup>2</sup> Variance (with regard to the household size) of the average mortgage loan per household with details about the size of mortgage loans.

<sup>3</sup> Percentage share of the average mortgage loan (per household) in the average mortgage loan (per household) with details about the size of mortgage loans.

Table 9

**Remaining mortgage loans of German households  
according to the age of the main income earner**

|  | Households total | Of which according to the age of the main income earner |       |        |        |        |       |       |          |
|--|------------------|---|-------|--------|--------|--------|-------|-------|----------|
|  |                  | below 25  | 25–35 | 35–45  | 45–55  | 55–65  | 65–70 | 70–80 | above 80 |
| Recorded households (number)   | 58,309           | 1,247   | 7,004 | 15,294 | 13,491 | 10,070 | 4,652 | 5,108 | 1,443    |
| Projected households (1000)  | 37,931           | 1,152   | 4,581 | 8,635  | 7,609  | 6,177  | 3,048 | 5,126 | 1,604    |
| Projected households with details about the size of (positive) remaining mortgage loans (1000)                           | 9,940            | (27)  | 880   | 3,329  | 2,828  | 1,876  | 508   | 433   | (60)     |
| Average remaining mortgage loan per household (€ 100)  | 256              | (21)  | 201   | 413    | 389    | 269    | 105   | 42    | (24)     |
| Average remaining mortgage loan per household with details about the size of (positive) remaining mortgage loans (€ 100) | 977              | (904)   | 1,047 | 1,070  | 1,047  | 886    | 633   | 501   | (649)    |
| Percentage share of the unconditional average mortgage loan <sup>1</sup>   | 26               | (2)   | 19    | 39     | 37     | 30     | 17    | 8     | (4)      |

Source: Income and Expenditure Survey 2003 (EVS 2003) of the Federal Statistical Office and own calculations.

( ): reduced value of information due to a lack of a sufficient number of recorded households.

<sup>1</sup> Percentage share of the average mortgage loan (per household) in the average mortgage loan (per household) with details about the size of mortgage loans.

Table 10

**Financial assets and debt of German households**

| Data source   |                              | EVS <sup>1</sup>  |                   | GSOEP <sup>2</sup> |                   | Financial accounts <sup>3</sup> |                   |
|---|------------------------------|-------------------|-------------------|--------------------|-------------------|---------------------------------|-------------------|
| Time of survey  |                              | beginning of 2003 |                   | beginning of 2002  |                   | end of 2002                     |                   |
| Projected households (EVS, GSOEP) or actual households (financial accounts) |                              | 37,931,000        |                   | 39,099,644         |                   | 38,720,000                      |                   |
|   |                              | total (€billion)  | per household (€) | total (€billion)   | per household (€) | total (€billion)                | per household (€) |
| 1)  | <b>Financial assets</b>      | <b>1,529</b>      | <b>40,300</b>     | <b>922</b>         | <b>23,580</b>     | <b>3,690</b>                    | <b>95,300</b>     |
| 2a)   | Consumer loans               | 53                | 1,400             | 141                | 3,606             | 204                             | 5,269             |
| 2b)   | Mortgage loans               | 971               | 25,600            | 672                | 17,197            | 1,002                           | 25,878            |
| 2)  | <b>Liabilities (2a + 2b)</b> | <b>1,024</b>      | <b>27,000</b>     | <b>813</b>         | <b>20,803</b>     | <b>1,206</b>                    | <b>31,147</b>     |
| 3)  | Net financial wealth (1 – 2) | 504               | 13,300            | 109                | 2,777             | 2,484                           | 64,153            |

<sup>1</sup> Income and Expenditure Survey (EVS) of the Federal Statistical Office.

<sup>2</sup> German Socio-Economic Panel (GSOEP) of the German Institute for Economic Research (DIW) and own calculations. Subsample G of GSOEP ("Oversampling of High Income") is not taken into account.

<sup>3</sup> Financial accounts of the Deutsche Bundesbank (without entrepreneurial loans).

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