

Brenke, Karl; Pfannkuche, Jan

Article

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AT A GLANCE

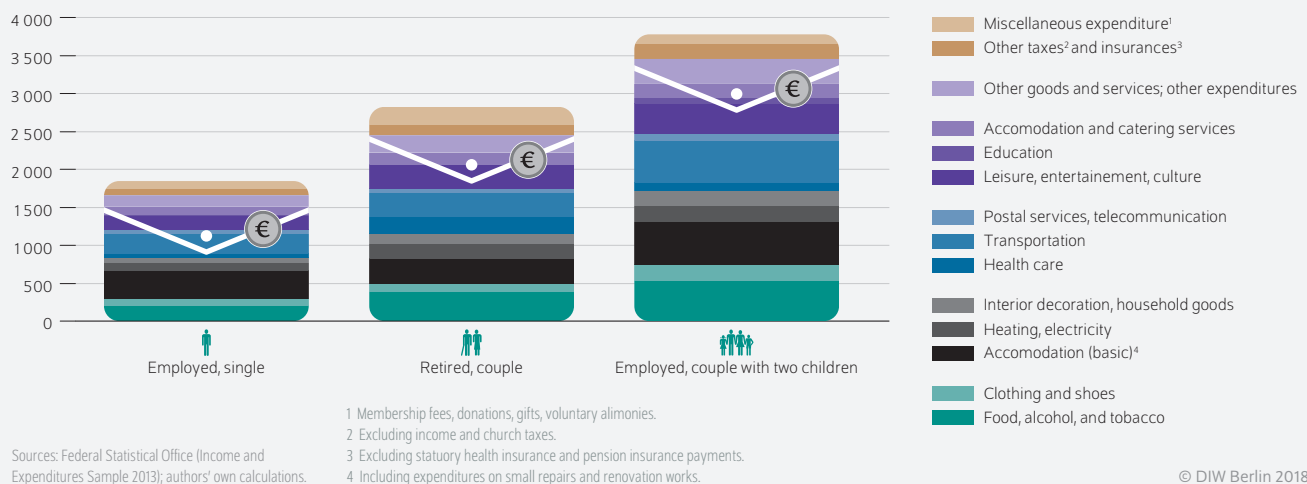
Household consumption and savings rate depend strongly on employment status, income, and age

By Karl Brenke and Jan Pfannkuche

- Private households in Germany spent on average 2,460 euros per month in 2013
- The lower the income, the more is spent on living and food expenses; higher-income households spend more on leisure activities, travel, and restaurants
- Increases in the price of goods and services affected all households to a similar degree
- The savings rate is, on average, a good 17 percent of household income
- Many households, however, are unable to save on a regular basis, especially one-person households, the unemployed, and single parents

On average, living, food, and transport expenses are the largest items of expenditure for private households in Germany; health expenditure also plays a role for older people

In euros per month in 2013



FROM THE AUTHOR

“The question is whether or not households are investing their sometimes high savings profitably—especially considering the current low interest rates. There is strong evidence this is not the case. It is noticeable that comparatively large amounts of money still flow into classic but low-yielding forms of investment, such as savings or term accounts.”

— Karl Brenke —

DATA

Data on approximately **43,000 households** which were collected in the official sample survey of income and expenditure 2013 were used in this study.

Household consumption and savings rate depend strongly on employment status, income, and age

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ABSTRACT

On what and to what extent private households in Germany spend money varies significantly depending on employment status, income, and age. As this study based on the most current official sample survey of income and expenditure from 2013 shows, unemployed households on average spend over half of their income on basic needs such as living and food expenses while unemployed people living alone spend almost two-thirds on basic needs. Employed and retired households with multiple adults, on the other hand, spend only one-third of their income on living and food expenses. Model calculations show that recent price increases of goods and services have affected all households to a similar degree. Before 2013, low-income households were slightly more affected than others due to their consumption patterns. The savings rate also depends on employment status, income, and age. While low-income households even go into debt, many other households are sometimes saving 20 percent or more of their income. On average, every household saved a good 17 percent of their income in 2013.

This report analyses the spending and saving behavior of private households in Germany. The study is based on data from the official sample survey of income and expenditure (*Einkommens- und Verbrauchsstichprobe*, EVS), a household survey conducted every five years featuring a detailed analysis of individual income and expenditure items. It is the largest survey of its kind in Europe. The most recent data are from 2013. Data from about 43,000 households were used for this study.¹ One of the shortcomings of the EVS is that high-net-worth individuals and those with an especially high income are not adequately represented,² a general problem affecting household surveys.³ For the vast majority of the population, however, EVS data provide a reliable picture of income and spending behavior. The definitions of income and expenditure, and thus also savings, used in the analysis deviate from the usual definitions somewhat (Box).

The lower a household's income, the more is spent on living expenses and food

In 2013, a standard private household in Germany spent almost 2,460 euros per month on average. For a typical two-person household, this equates to 1,230 euros per person monthly.

The largest item of expenditure by far was living expenses (including electricity and minor repairs), which accounted for almost a quarter of household consumption (Table 1). Expenditures on leisure activities, accommodations while traveling, and restaurants⁴ make up about one-sixth of household consumption, while money spent on the two categories of food and beverages and transport (public transport as well as car ownership costs) make up one-seventh each. The other areas of expenditure are much less significant.

¹ Cf. Statistisches Bundesamt, *Einkommens- und Verbrauchsstichprobe* EVS 2013, quality report (Wiesbaden: 2016) (in German; available online, accessed February 27, 2018; this applies to all other online sources in this report unless stated otherwise). The EVS 2013 has been released as a scientific use file.

² Cf. Statistisches Bundesamt, *Einkommens- und Verbrauchsstichprobe*, 4.

³ Cf. Christian Westerbeier and Markus M. Grabka, "Significant Statistical Uncertainty over Share of High Net Worth Households," *DIW Economic Bulletin*, no. 14/15 (2015): 210–219 (available online).

⁴ Including money spent in staff canteens and cafeterias.

PRIVATE HOUSEHOLD CONSUMPTION

Table 1

Structure of expenditures by household type, 2013

Percentage of total expenditures

	Food, beverages, tobacco products	Clothing, shoes	Housing costs ¹	Home fur- nishings, textiles, equipment	Health	Transport	Telecom- munica- tion	Education	Leisure, acco- modation ²	Insuranc- es, taxes ³	Misc. payments, fees ⁴ , donations	Others
Income groups - percentiles⁵												
10th (lower ten percent)	19.4	3.7	37.6	3.0	2.4	8.1	3.9	0.8	10.7	4.4	1.9	4.1
20th	18.5	4.3	33.8	3.9	2.5	9.1	3.8	0.9	12.1	4.3	2.5	4.4
30th	17.4	4.6	28.8	4.1	3.0	11.7	3.3	0.9	13.5	4.8	3.3	4.6
40th	16.0	4.7	25.9	4.6	2.7	12.9	3.1	0.9	14.5	5.4	4.4	4.9
50th	15.3	4.8	24.2	4.8	2.9	13.5	2.9	0.9	15.5	5.4	5.1	4.7
60th	14.8	5.0	22.3	4.9	3.6	14.4	2.9	1.0	16.1	5.4	5.1	4.8
70th	13.9	5.2	22.1	5.1	3.6	14.2	2.7	1.0	16.4	5.7	5.2	4.8
80th	12.7	5.2	21.0	5.3	4.0	15.2	2.5	1.0	16.8	5.3	6.3	4.8
90th	11.6	5.1	19.7	5.7	4.8	15.7	2.3	0.9	17.5	5.0	7.0	4.6
100th (upper ten percent)	9.4	4.8	17.8	5.9	7.1	15.4	1.8	0.7	18.1	4.5	9.4	5.0
Status of head of household and household structure												
Employed, singles	11.5	4.8	26.7	4.3	3.1	14.3	3.3	0.7	16.2	4.7	5.8	4.7
Employed, single parents	14.8	6.0	26.8	4.0	2.6	13.2	3.3	1.6	14.4	4.7	3.5	5.3
Employed, couples without children	12.7	5.0	20.9	5.8	3.4	16.6	2.5	0.5	17.0	5.2	6.0	4.6
Employed, couples with children	14.4	5.8	20.4	5.6	3.1	15.9	2.6	1.6	15.9	5.6	4.2	4.8
Employed, other households	14.9	5.2	22.0	5.1	3.3	14.7	2.9	1.0	14.4	6.6	5.1	4.8
Unemployed, singles	18.9	3.1	43.2	3.1	2.1	6.0	4.4	0.8	9.6	3.2	1.6	3.9
Unemployed, single parents	19.3	5.5	39.4	3.4	1.7	6.9	4.2	1.2	8.9	3.5	1.1	4.8
Unemployed, couples without children	21.3	3.7	32.5	4.6	3.2	10.1	3.8	0.4	10.5	4.2	1.7	4.0
Unemployed, other households	22.1	4.6	33.0	3.9	1.7	8.8	3.8	0.9	10.2	3.6	1.5	5.9
Pensioners, singles	12.8	3.2	28.8	4.4	5.8	8.4	2.6	0.1	15.1	4.2	9.3	5.3
Pensioners, couples without children	14.2	3.7	19.7	4.9	8.2	11.5	2.0	0.1	17.4	5.0	8.8	4.5
Pensioners, couples with children	15.1	4.9	21.2	4.6	6.3	15.0	2.9	1.9	14.9	4.9	4.1	4.2
Pensioners, other households	15.2	3.6	19.2	5.2	6.0	15.7	2.4	0.5	13.9	7.0	6.2	5.1
Students	14.2	5.8	33.6	2.8	1.7	9.9	4.5	4.2	16.5	1.6	1.3	3.9
Others, not in the labor force	17.4	5.0	33.0	3.7	3.1	7.3	3.5	1.0	12.7	4.7	3.9	4.9
Age of household head												
Up to 24 years	13.2	5.8	28.2	3.5	1.8	17.0	4.2	2.5	14.1	3.7	1.9	4.2
25 to 34 years	12.5	5.4	26.4	5.0	2.2	15.7	3.4	1.6	15.0	5.1	3.1	4.7
35 to 44 years	13.8	5.6	23.2	5.3	3.0	15.0	2.8	1.4	15.8	5.3	4.0	5.0
45 to 54 years	14.3	5.3	22.2	5.0	3.2	14.9	2.7	0.9	16.4	5.2	5.3	4.6
55 to 64 years	14.1	4.7	21.7	5.5	4.2	14.1	2.5	0.5	16.1	5.1	6.9	4.6
65 to 74 years	13.6	3.7	22.3	4.7	6.5	12.3	2.2	0.2	16.8	5.0	8.0	4.5
75 years and older	13.3	3.3	23.3	4.8	8.4	8.5	2.1	0.1	15.9	4.5	10.6	5.3
Residence												
Western Germany	13.5	4.9	22.8	5.0	4.4	14.0	2.6	0.9	15.8	5.1	6.2	4.7
Eastern Germany	14.5	4.6	24.5	5.2	3.1	13.4	3.0	0.8	16.7	4.8	4.6	4.8
Total	13.7	4.9	23.1	5.0	4.2	13.9	2.7	0.9	16.0	5.1	5.9	4.7

1 Including expenditures on small repairs and renovation works.

2 Including expenditures in gastronomy.

3 Excluding income and church taxes.

4 Including church taxes.

5 Household income based on the OECD needs-adjusted equivalence scale.

Sources: Federal Statistical Office (Income and Expenditures Sample 2013); authors' own calculations.

Box

Data and definitions

The definitions chosen in this study deviate in part from the usual ones as the focus is on private households according to their social characteristics rather than economic aggregates.

In order to determine net income, only payments which are binding and legally mandatory—for example, in the case of employees, this includes payments such as income tax as well as contributions to the statutory pension scheme and health and unemployment insurances—are deducted from gross income. Other payments are disregarded when calculating net income, even if they are taken out of one's wages. They are either counted as consumption expenditure (such as church taxes or an additional health insurance policy) or as savings (such as voluntary payments into a company pension scheme). In the case of owner-occupied property, a part of the costs (interest, insurance, taxes, maintenance and repair, and utilities and other fees) is classified as expenditure while mortgage repayments are considered as savings. The taking out of and repayment of consumer credits or similar debts are not taken into consideration. Bottle deposits and sales of consumer goods (such as one's own car) are not recorded as revenue, but rather as consumption deduction.

The 2013 sample survey of income and expenditure (EVS) does not include depreciation, which plays a major role in income for the self-employed, for example in terms of renting and leasing. In this respect, the calculation of the savings rate is the gross savings rate. As there is no information available, changes in the value of buildings and equipment resulting from price developments in the markets, such as the real estate market, are excluded. There is no information on working capital; therefore, net worth is systematically underestimated due to the lack of available information.

The expenditure pattern varies considerably depending on net household income.⁵ The lower the equivalized income is, the larger the share of total household expenditure spent on living and food expenses is; low-income households also spend a relatively high amount on telecommunication services. On the other hand, the higher the income is, the more is spent on transportation, leisure time/accommodations/restaurants, interior decoration, and health. The same applies to the very diverse category of miscellaneous expenditure, which includes donations, monetary gifts to relatives, and club membership fees. However, there are no differences between the income groups in terms of the share spent on education expenditure,⁶ such as fees for adult evening classes or schools and daycare—it is usually small.

Some details require a closer look. As a part of a traditional social research study, it was observed at the beginning of the last century that numerous low-income households were barely able to afford basic costs such as living and food expenses due to spending too much on alcohol and gambling.⁷ This apparently no longer applies today, as the share spent on alcohol⁸ and gambling does not vary with income level. Restaurant expenditure is even proportionately larger the higher the income is (Table 2). However, the situation is different for tobacco consumption: on average, low-income households do not spend much less on tobacco products than high-income households—correspondingly, the share spent on tobacco as a share of total consumption is comparatively high for the former.

As low-income households spend a comparatively large amount on living and food expenses, they are forced to spend less in other areas. Aside from relatively low restaurant expenditure, low-income households also spend a far below average amount on travel. The higher a household's income is, the greater the share of consumption spent on travel is. This also applies—although it is less pronounced—to clothing and footwear expenditure, but does not include money spent on hairdressing services. Nevertheless, in absolute terms, low-income households spend much less money on goods that are related to one's personal appearance than high-income households. Women spend more on clothing and shoes than men in all income groups.

For low-income households, a relatively small share of consumption is accounted for by admission fees, such as for museums, the theater, and other events. On the other hand, these households spend much less on pets, books,

⁵ In classifying households according to income level, the equivalized income was used, taking into account that expenditures rise disproportionately in relation to the number of household members. According to the OECD scale, the first household member is assigned a value of 1, each additional person over 15 a value of 0.7, and each child a value of 0.3. Ultimately, the quantity of interest (income or expenditures) is divided by the summed values of all household members. Equivalization using the OECD scale is not supported by scientific evidence and is thus arbitrary.

⁶ Excluding expenditures on books.

⁷ Cf. Benjamin Seeboorn Rowntree, *Poverty: A Study of Town Life* (London: Macmillan, 1901).

⁸ However, there are indications that alcohol expenditure is insufficiently recorded in the EVS, cf. Statistisches Bundesamt, *Einkommens- und Verbrauchsstichprobe EVS 2013*.

PRIVATE HOUSEHOLD CONSUMPTION

Table 2

Households by income group and their expenditures on selected consumer goods, 2013

	Income groups—percentiles ¹										All households
	10th	20th	30th	40th	50th	60th	70th	80th	90th	100th	
	Euros per month										
Alcoholic beverages	11	14	16	19	23	25	27	29	34	44	24
Tobacco products	15	16	17	17	18	20	17	20	16	15	17
Clothing and shoes—men	11	15	18	23	28	34	39	46	55	73	34
Clothing and shoes—women	20	31	42	50	57	66	73	85	96	116	64
Electricity	50	57	63	67	71	73	76	77	80	86	70
Package holidays	10	19	30	42	59	64	66	85	107	155	64
Books	4	5	7	8	10	11	13	15	17	22	11
Pets	6	9	13	13	14	18	17	20	22	26	16
Gambling	4	6	7	9	11	11	12	13	14	21	11
Hairdressing—men	2	2	3	3	4	4	5	5	6	7	4
Hairdressing—women	6	9	11	13	15	15	16	17	18	20	14
Gastronomy, restaurants	24	33	47	61	76	88	98	116	142	186	87
Admission fees ²	7	11	16	19	24	29	33	38	44	55	28
Newspapers, magazines	6	9	11	13	15	15	16	18	21	28	15
	Percentage of total expenditures										
Alcoholic beverages	1.1	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Tobacco products	1.4	1.2	1.0	0.9	0.8	0.8	0.7	0.7	0.5	0.3	0.7
Clothing and shoes—men	1.0	1.1	1.1	1.2	1.3	1.4	1.5	1.5	1.6	1.6	1.4
Clothing and shoes—women	1.9	2.3	2.5	2.6	2.6	2.7	2.8	2.8	2.8	2.6	2.6
Electricity	4.8	4.2	3.8	3.4	3.2	3.0	2.9	2.6	2.3	1.9	2.9
Package holidays	1.0	1.4	1.8	2.2	2.7	2.6	2.5	2.8	3.1	3.5	2.6
Books	0.4	0.4	0.4	0.4	0.4	0.5	0.5	0.5	0.5	0.5	0.5
Pets	0.6	0.7	0.8	0.7	0.6	0.7	0.6	0.7	0.6	0.6	0.7
Gambling	0.3	0.4	0.4	0.4	0.5	0.4	0.5	0.4	0.4	0.5	0.4
Hairdressing—men	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Hairdressing—women	0.5	0.6	0.7	0.7	0.7	0.6	0.6	0.6	0.5	0.4	0.6
Gastronomy, restaurants	2.3	2.5	2.8	3.1	3.4	3.6	3.7	3.9	4.1	4.2	3.6
Admission fees ²	0.7	0.8	0.9	1.0	1.1	1.2	1.2	1.2	1.3	1.2	1.1
Newspapers, magazines	0.6	0.6	0.7	0.7	0.7	0.6	0.6	0.6	0.6	0.6	0.6

¹ Household income based on the OECD needs-adjusted equivalence scale.

² For culture, leisure and sport.

Sources: Federal Statistical Office (Income and Expenditures Sample 2013); authors' own calculations.

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newspapers, and magazines—but not proportionally. The share of total expenditure allocated to these items generally does not depend on one's income level.

However, the situation is completely different for electricity. The possibility of adjusting electricity use to one's income level is obviously quite restricted. Accordingly, low-income households must spend a larger share of their total expenditure on electricity than the average. Low-income households even spend more on electricity than on clothing.

Retirees often live in their own properties

Income and spending behavior depend significantly on employment status. For example, the unemployed—one-person households in particular—spend a significant share of

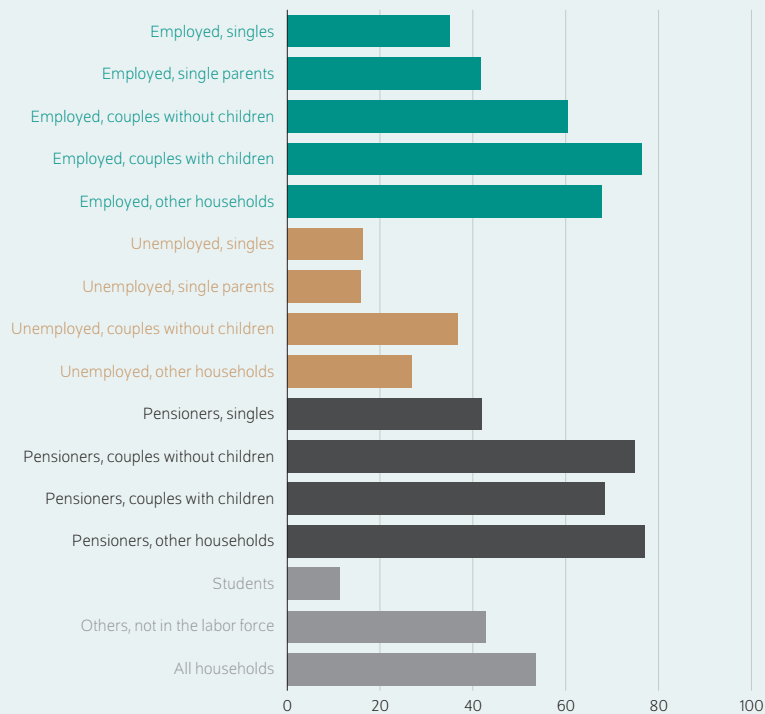
their total expenditure on living and food expenses as well as telecom services. In contrast, money spent on leisure activities, accommodations, interior decoration, and transport make up a very small share of total expenditure. The spending behavior of those who are not unemployed but are also not working or retired, such as students, is similar.

Living expenses make up a comparatively small share of total expenditures for employed people, especially when there is more than one adult in the household. A comparably small share is also spent on food; households with children spend more than households without children. Clothing expenditure, however, makes up a relatively large share of total expenditure; transport expenditure is also especially high, but that may be due to work commutes. Moreover, employed people spend a relatively large amount

Figure 1

Share of owner-occupiers by household type, 2013

Percentage of all households in percent



Sources: Federal Statistical Office (Income and Expenditures Sample 2013); authors' own calculations.

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of their income on accommodations and goods for leisure activities, although this does not apply to single working parents.

Living expenses also make up a relatively small share of retirees' total expenditure. That is related to the fact that a disproportionately high amount of retirees live in homes or apartments they own themselves (Figure 1) and their once burdensome debts have mostly been paid off. The rate of property ownership is only similarly high among employed people with children. In this regard, there is an exception among retirees: those who live alone and tend to rent, which comes with relatively high living expenses. Food, leisure goods, interior design, and transport expenditures are proportionally lower among retirees than all households on average. They spend an unusual amount on their health (for medications, doctors' fees, or other fees, such as for educational health courses), which constitutes a relatively large expenditure. The same applies to monetary gifts.

Older people spend more on health services, younger people on living expenses

When households are structured according to the age of the head of household, one notices that miscellaneous expenditure—including, for example, regular monetary gifts to children and grandchildren—rises with age. The situation is different when it comes to transport, telecom services, clothing, and education expenditure as here, their share of total expenses decreases as one grows older. Younger people spend a comparatively large part of their income on living expenses, yet a disproportionately low amount is spent on interior decoration. However, there are no major differences between age groups in regards to pro-rata expenditures on food and leisure goods.

Low-income households have recently been less affected by price increases

Since, on the one hand, the expenditure pattern depends significantly on income, and, on the other, consumer prices do not develop uniformly for different items, it may be that price increases affect some households more and others less; this was examined for this report using model calculations as part of a shift-share analysis. Assuming that the expenditure pattern of households remains the same over time, expenditures for each group of goods⁹ have been updated based on official consumer prices¹⁰ using data from the EVS 2008.

Firstly, it is noticeable that the price increase was significantly higher in the first half of the sample period—2008 to 2013—than it was in the second half, 2013 to 2017. A pattern

⁹ According to the Classification of Income and Expenditure of households (SEA, 1998 edition) on a two-digit level.

¹⁰ To do so, it was necessary to deviate from the definition of living expenses chosen here. For property owners, the actual costs are not used, but rather expenditures that correspond to a rented apartment—as this is the only status recognized in the official consumer price statistics.

revealed itself in the first half: the lower the income of private households, the more strongly they were affected by the increase in consumer prices (Figure 2). However, the differences were not large. For relatively low-income households, above-average price increases in food, beverages, and energy consumption related to housing (including heating and electricity) were noticeable. Price decreases in telecom services, on the other hand, relieved these households.

Between 2013 and 2017, a contradictory pattern emerged: households with higher incomes were affected somewhat more by the inflation. Although rent prices rose above average during this time, prices of heating associated with living sank. For high-income households, prices for leisure items, restaurant visits, and accommodations increased noticeably.

Savings rate varies strongly depending on social group

Savings is the difference between net income and expenditures; the savings rate is the share of savings in relation to net income. According to the definition chosen for this report, private households saved on average a good 17 percent of their income in 2013 (Table 3). Because some households save a lot but many tend to save little, the median value of the savings rate is lower: half of households save a maximum of 13.8 percent of their income and the other half at least that much.

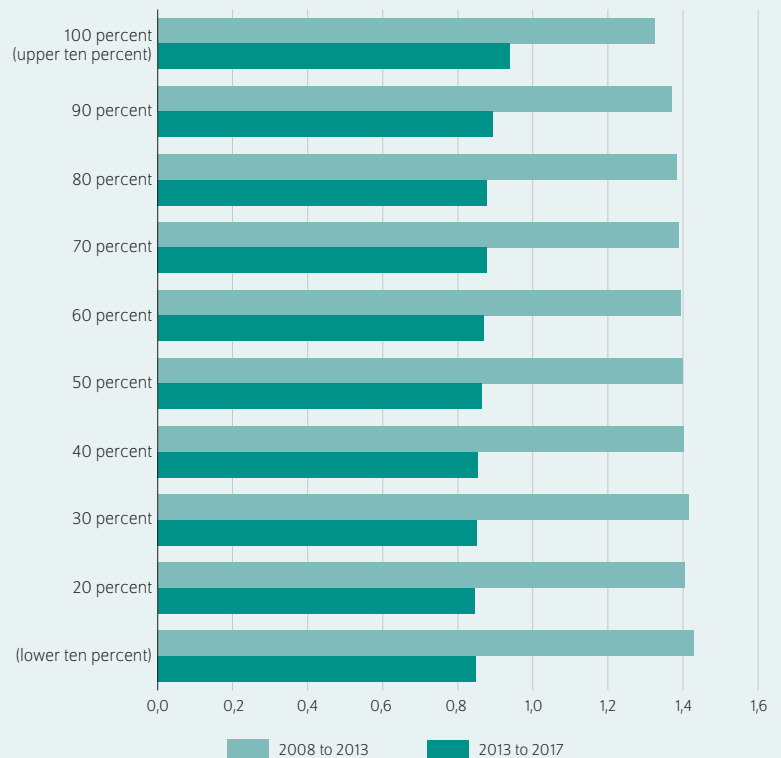
This shows the expected relationship between the savings rate and income: the higher the income, the higher the savings rate. On average, the lowest-income households even have a negative savings rate, meaning they are in debt. These households' debts are, on average, quite high; however, the median value—the debt level of households exactly in the middle of the debt ranking—is relatively low. This is because there are some households in this group that are very deeply in debt while others have minimal debt. Overall, of the ten percent of households with the lowest incomes, over half had a negative savings rate. There are households with a negative savings rate in every income group, but the higher the incomes, the smaller the proportion of households that are in debt or partly finance their consumption using their net worth. Inverse to that is the share of households with a high savings rate (20 percent or more). The share of households with a high savings rate among high-income households is especially large; such a high savings rate, however, is also occasionally found among low-income households.

Households headed by someone unemployed, studying, or who is not working for other reasons although retirement age has not yet been reached, barely save; there is also an above average amount of households in debt in these groups.

The savings rate among retiree and retired civil servant households are also below average, but not as much as other groups. That is related to the fact that these households give away a significant amount of their income to family members

Figure 2

Effects of rising consumer prices on households by income group¹ Annual average change of consumer prices in percent



¹ Household income based on the OECD needs-adjusted equivalence scale.

Sources: Federal Statistical Office (Consumer Price Index, Income and Expenditures Sample 2013); authors' own calculations.

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Table 3

Savings by household type, 2013¹

	Savings rate (percent)		Monthly savings (euros)		Percentage of households	
	Mean	Median	Mean	Median	with negative savings	with a savings rate of 20 percent and more
Income groups—percentiles¹						
10th (lower ten percent)	-23.8	-4.2	-201	-37	59	11
20th	-4.9	1.1	-63	11	48	16
30th	0.1	5.7	2	83	38	23
40th	2.2	8.6	44	151	36	30
50th	6.2	11.9	145	260	29	36
60th	10.4	16.0	283	390	26	43
70th	16.0	20.2	498	565	20	50
80th	18.5	24.4	684	818	18	58
90th	23.6	29.1	1069	1204	14	65
100th (upper ten percent)	37.5	40.5	2687	2434	11	77
Status of head of household and household structure						
Employed, singles	18.9	15.1	407	258	27	42
Employed, single parents	12.8	11.4	328	237	30	35
Employed, couples without children	23.4	22.5	945	728	22	54
Employed, couples with children	22.1	22.2	1025	879	19	54
Employed, other households	26.0	24.1	1096	842	17	58
Unemployed, singles	-1.8	0.2	-16	2	49	11
Unemployed, single parents	5.4	3.9	79	56	37	16
Unemployed, couples without children	4.6	7.0	71	90	40	27
Unemployed, other households	1.4	1.7	26	24	42	14
Pensioners, singles	5.5	3.7	88	42	43	25
Pensioners, couples without children	8.3	10.7	244	244	35	36
Pensioners, couples with children	9.8	10.4	336	257	36	32
Pensioners, other households	17.3	19.2	620	530	29	49
Students	1.5	0.6	19	8	49	20
Others, not in the labor force	-1.0	1.1	-14	-10	47	24
Age of household head						
Up to 24 years	9.1	9.8	154	110	35	31
25 to 34 years	19.9	16.9	552	362	26	45
35 to 44 years	21.7	18.6	762	509	22	48
45 to 54 years	21.2	17.2	743	429	26	45
55 to 64 years	18.9	13.6	582	249	31	41
65 to 74 years	8.1	6.9	197	105	40	31
75 years and older	9.1	9.6	209	158	35	35
Residence						
Western Germany	18.3	14.5	565	309	29	42
Eastern Germany	13.8	11.5	329	187	32	36
Total	17.5	13.8	515	275	30	41

1) Household income based on the OECD needs-adjusted equivalence scale.

Sources: Federal Statistical Office (Income and Expenditures Sample 2013); authors' own calculations.

not in their own household. For example, the older the head of household—usually the person who makes the largest contribution to household income—the higher the sum of miscellaneous expenditures in the form of monetary gifts (Figure 3). When the head of household is 74 years of age or older, such miscellaneous expenditures make up almost nine percent of total expenditure.

Households headed by an adult in middle age, especially those with multiple adults, have the highest savings rate. In most cases, these households have people who are gainfully employed. In general, households with working adults save a relatively high share of their net income.

Households with a head of household in middle age save not only by using savings accounts or acquiring valuable securities, but also by paying into a voluntary pension scheme and, to a considerable extent, by repaying mortgages (Figure 4). The same applies to high-income households: the higher the income, the larger the amount—in relation to total income—spent on mortgage payments and paid into a voluntary pension scheme (Figure 5).

The higher the net worth, the higher the savings rate

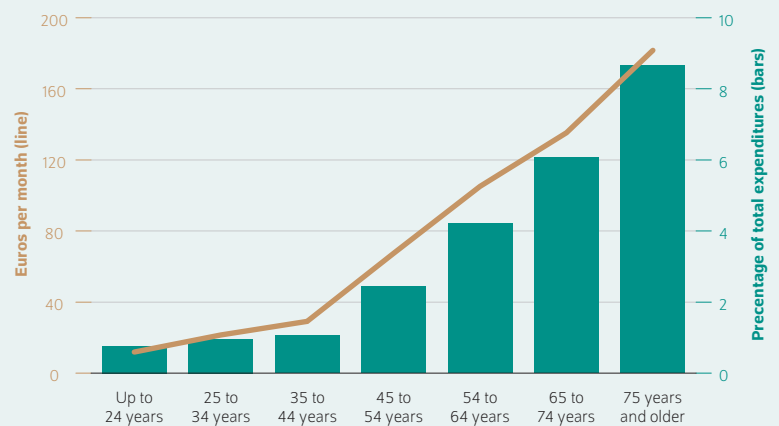
The savings rate also depends on how many net assets one has: the more net worth (all financial assets minus outstanding liabilities) a household has, the more it saves (Figure 6). However, there is an exception: households with net debt save more than those that have only have a nest egg stored away, and also more than those that can afford a small car without borrowing money. This behavior is completely rational: if you have debt, you spend less and save more.

The finding that there is a clear connection between net worth and savings rates may confirm the popular opinion that more money flows to where there is already a significant amount. However, things are not so simple. If net worth is not inherited or given as a gift, it has to be earned on one's own. Net worth must therefore be accumulated over time, generally beginning when one enters the workforce and ending at retirement. Accordingly, net worth varies by age. Households with heads of household between 55 and 64 years old have the highest net worth (Figure 7); heads of households who are older or younger have a lower net worth. For example, households with a head of household 74 years old or older are less well off than those who have a head of household between 45 and 54 years old. There is no linear connection between net worth and age, but net worth grows until one reaches the standard retirement age; subsequently, it is used to finance expenditures.

It is observable that the mean is several times higher than the median in the net worth distribution. This applies to all head of household age groups. Regardless of age, net worth is therefore distributed unequally. Here, the income level—and thus employment status—as well as the past spending behavior of households are noticeable.

Figure 3

Voluntary alimonies and monetary gifts¹ by age group, 2013



¹ Excluding donations to organizations.

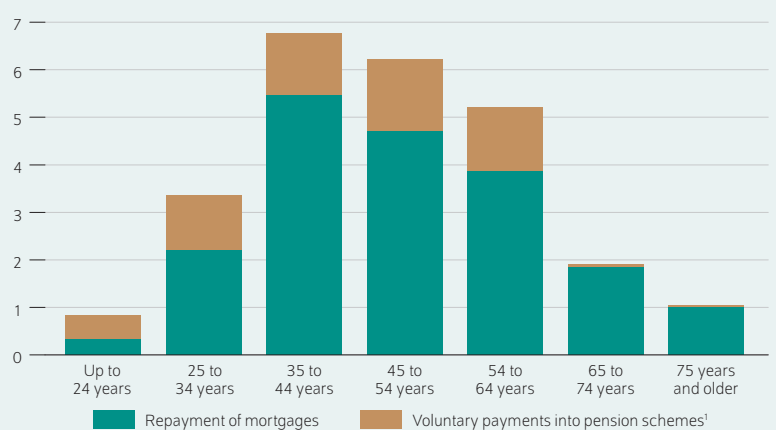
Sources: Federal Statistical Office (Income and Expenditures Sample 2013); authors' own calculations.

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Figure 4

Repayment of mortgages and payments into voluntary pension schemes¹ in relation to the household net income by age of head of household, 2013

Percentage of the household net income



¹ Including company pension schemes.

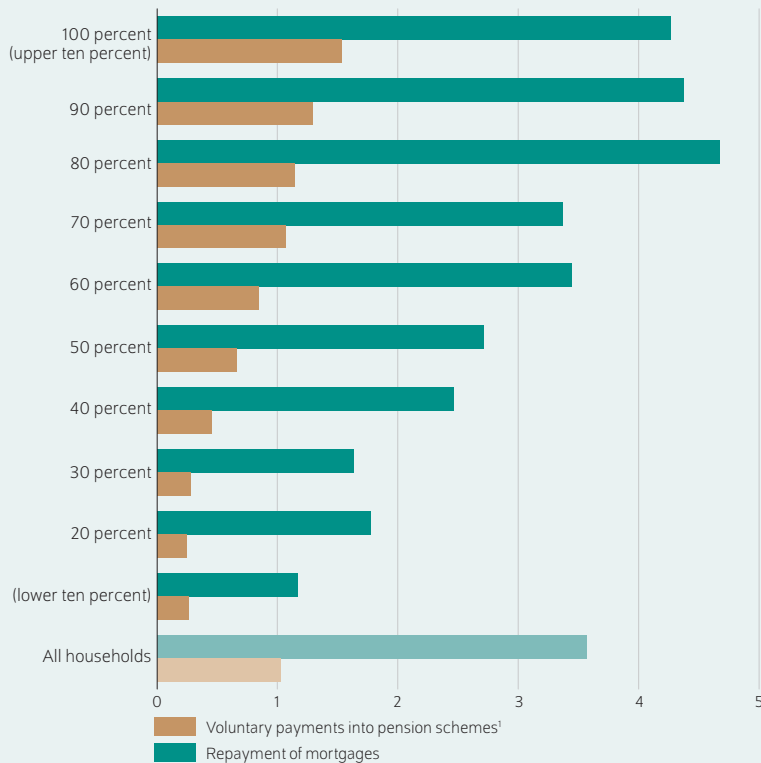
Sources: Federal Statistical Office (Income and Expenditures Sample 2013); authors' own calculations.

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Figure 5

Repayments of mortgages and payments into voluntary pension schemes¹ in relation to the household net income by income group², 2013

Percentage of the household net income



1 Including company pension schemes.

2 Household income based on the OECD needs-adjusted equivalence scale.

Sources: Federal Statistical Office (Income and Expenditures Sample 2013); authors' own calculations.

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Conclusion

How much and on what private households spent money heavily depends on household income and thus employment status. Low-income households spent a comparatively large share of their budget on living and food expenses as well as telecom services. This is particularly evident in households headed by unemployed people, students, and other non-working people. The higher the income, the more is spent on leisure activities, restaurant visits, travel, interior decoration, vehicles, and transportation. Such a pattern of consumption is especially noticeable in employed households. The consumption pattern of retired households strongly resembles that of employed households. It is noticeable that older people spend comparatively more on gifts, monetary and otherwise, to family members outside of the household.

Households headed by a middle aged adult save a lot in particular. This is related to the fact that a significant amount of their net income is used to repay mortgage loans. Moreover, as expected, the higher the income and net worth, the higher the savings rate. As net worth is often accumulated over the course of one's professional life, the savings rate depends on age. Our results suggest that households with a head of household who will retire within the next few years will tend to have a higher net worth than households with a head of household who has already reached retirement age.

The savings rate calculated here is higher than those reported in other recent studies—even higher than in other studies also based on the EVS 2013.¹¹ This is due to the definitions of income and expenditure used. For example, mortgage repayments counted as savings only in this study amount to 3.5 percent of net income.

There are other conceivable definitions: for example, employees' mandatory pension payments could be viewed as savings as they generate subsequent benefits. It could also include the corresponding contributions paid by employers for their employees, seeing as their payments into the pension scheme are essentially a part of their employees' salaries. If these mandatory contributions were counted as savings, then according to EVS 2013 data, the savings rate would be 27 percent on average.¹² It is probably higher in actuality, seeing as the earned future civil service pension entitlements must be taken into account as well; however, the EVS contains no information on this.

Altogether, the population in Germany is saving a significant part of their income on average. However, there are large deviations—influenced by employment status and thus by income as well as age—from the average among households.

¹¹ Cf. inter alia Jochen Späth and Kai Daniel Schmid, "The Distribution of Household Savings in Germany," *IMK Studies*, no. 50 (2016) (available online). Also cf. Deutsche Bundesbank, *Household wealth and finances in Germany: results of the 2014 survey: March 2016 monthly report* (2016) (available online).

¹² Savings according to the definition used here plus the twofold (employer and employee) mandatory pension contributions divided by the total of net income and the twofold mandatory pension contributions.

For example, among the 20 percent of households with the lowest incomes, about half have a negative savings rate, meaning they are in debt. Even if, for example, the students in this group can generally pay off their debts later in life, there are still many households that fail to regularly save.

For households that are able to save a portion of their income, the question is whether or not they are investing their savings profitably—especially considering the current low interest rates. There is strong evidence this is not the case, as shown by the fact that comparatively large amounts of money still flow into classic but low-yielding forms of investment, such as savings accounts or term accounts¹³ as well as the fact that relatively few households in Germany own property.¹⁴

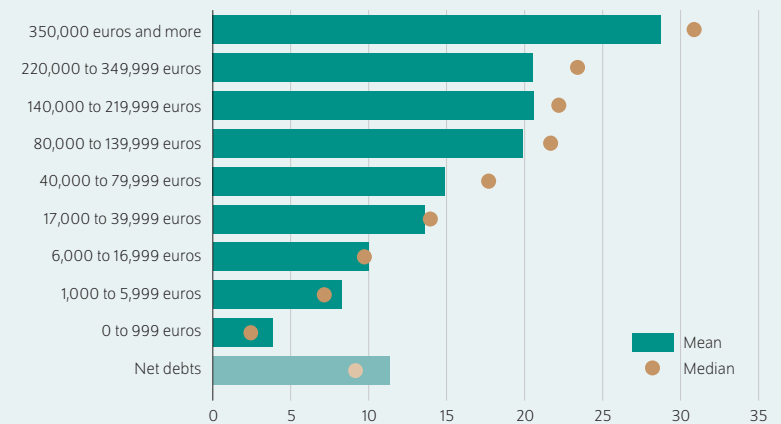
¹³ Cf. Marcel Fratzscher, *Verteilungskampf: Warum Deutschland immer ungleicher wird* (Munich: Hanser, 2016) (in German).

¹⁴ According to data from Eurostat, the statistical office of the European Union, Germany was second to last in a European comparison in terms of the proportion of households owning property in 2016; in Germany, 51.7 percent of the population owns property; in the entire EU, it was 69.2 percent.

Figure 6

Savings rates by net assets, 2013

Percentage of household net income



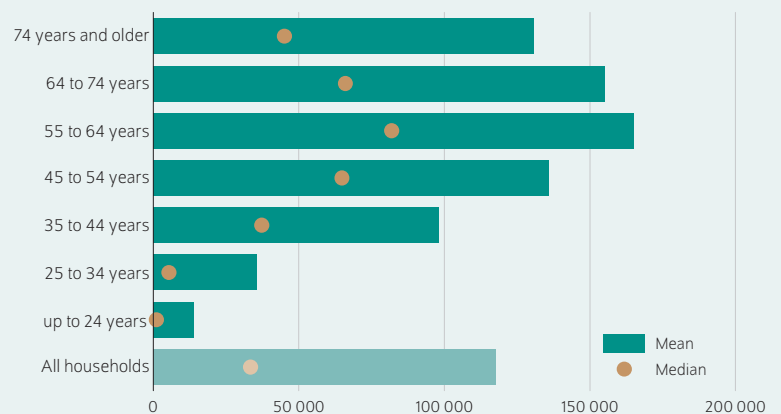
Sources: Federal Statistical Office (Income and Expenditures Sample 2013); authors' own calculations.

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Figure 7

Net assets by age of household head, 2013

In euros



Sources: Federal Statistical Office (Income and Expenditures Sample 2013); authors' own calculations.

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Karl Brenke is an advisor in the Executive Board at DIW Berlin | kbrenke@diw.de

Jan Pfannkuche was a doctoral candidate at DIW Berlin | Jan.Pfannkuche@gmx.de

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DIW Berlin — Deutsches Institut für Wirtschaftsforschung e. V.
Mohrenstraße 58, 10117 Berlin

www.diw.de

Phone: +49 30 897 89-0 Fax: -200

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