The German SAVE study
Design and Results

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1. Introduction

Saving behavior is complex. Much more complex than textbook economics suggests. Theory alone is not sufficient; in addition, we need empirical observations to understand saving behavior in its complexity. We need to observe how households invest, how much of their income they put aside for precaution, old age provision, or building a home, and how households draw their accumulated savings down, if at all, in old age.

There is no substitute for observing actual behavior if one wants to understand actual behavior. The SAVE survey does this for saving behavior in Germany. Germany is a country with a relatively high saving rate. Why so? This is not easy to understand for economists, psychologists and sociologists. It is a puzzle for economists – "the German Savings Puzzle"[1] - because Germany has a tight public safety net, much tighter than other countries, notably the United States. This should make private saving in Germany less of a necessity than in the U.S. – but it is the U.S. which has a much lower saving rate. The psychologists may explain the high saving rates by the trauma of two wars, worsened by the economic and political roller-coasters in the time between them which has made people risk avers. The sociologists, in turn, acknowledge the philosophy of moderation ("Maßhalten") during the 1950s and 60s which has strongly encouraged saving, made debt taking socially unacceptable and discouraged U.S.-type consumption rates among those who are currently at the peak of their wealth

[1] Börsch-Supan et. al. 2003b, pg. 58.

holdings. These psychological and sociological explanations may hold for the older generation, but are less convincing for those born into the wealthy "Wirtschaftswunderland".

Most likely, saving behavior is therefore different for different cohorts and at different ages. This is the reason why SAVE has been constructed as a panel. No other data set up will permit the distinction between age categories and birth cohorts, and even with panel data it is a formidable task to identify the various effects at work.[2] Building up a panel is not easy. SAVE started with some early experiments in the first wave 2001 until it arrived at a fairly stable panel data set in the most recent wave of 2007.

This book has three parts: scientific background, design, and results. We begin by describing the intellectual background of the SAVE survey and the strategic selections of topics to be covered. The second part is devoted to the design of SAVE: the often unpleasant choices between the researchers' desire to measure everything and the respondents' tiredness to answer very personal questions. Details are relegated to a technical appendix. The third part is the longest and delivers an overview of the central results drawn from the SAVE panel: How Germans save, and how this has changed from 2001 through 2007.

More specifically, Chapter 2 starts with the fundamental neoclassical and behavioral saving theories on which empirical analysis is based. They motivate the selection of questionnaire topics covered by

[2] Brugiavini and Weber (2003)

the SAVE survey, summarized in Chapter 3. Chapter 4 describes the technical aspects of the SAVE survey, such as interview modes and representativeness of the sample. Chapter 5 gives an overview over our results and presents many aspects of saving behavior in Germany. How much do Germans households save? Which assets do they hold? How has the portfolio composition changed in recent years? Do rich and poor households invest their savings differently? Which saving motives are important for the Germans? Finally, Chapter 6 draws our conclusions: What we have learned so far? What do we still need to learn in future research? The technical appendices in Chapter 7 contain the 2007 questionnaire and additional technical details such as imputation and weighting procedures.

The SAVE survey has been funded by the Deutsche Forschungsgemeinschaft (DFG, the German National Sciences Foundation) through the Sonderforschungsbereich 504, dedicated to Mannheim University's Program on Behavioral Economics. We are extremely grateful for the generous and long-term support through the DFG. We thank the State of Baden-Württemberg, the German Insurance Association (GDV), and the German Institute on Old-Age Provision (DIA) who provided additional funding for specific modules.

We owe a large intellectual debt to a group of researches who are pursuing similar goals elsewhere. SAVE would not have emerged without several EU-sponsored networks on savings and pensions, called SPSS, TMR and RTN in their various re-incarnations. Arie Kapteyn's visionary and experimental data sets in the Netherlands, the Banca D´Italia´s courageous Survey of Household Income and Wealth (SHIW), Arthur Kennickel's experience of the US Survey of Consumer

Finances (SCF), André Masson and Luc Arrondel´s fantasy of asking things the other way around in France: the SAVE questionnaire is rooted in the intellectual heritage of this international group of researchers. Klaus Kortmann and Thorsten Heien from TNS-Infratest then taught us how to translate intellectual curiosity into workable survey questions.

Four dedicated project managers at MEA have made SAVE a reality: The late Angelika Eymann provided the foundation of SAVE by designing the first version of the questionnaire. Lothar Essig managed the surveys in 2001, 2003 and 2004. Daniel Schunk took over in 2004 and managed the 2005 and 2006 surveys. Michela Coppola continued the project from 2007 on. These project managers have been the heart of the project. Anette Reil-Held and Joachim Winter provided guidance throughout the project. Finally, we are grateful at our armada of dedicated research assistants: Gunhild Berg, Katharina Flenker, Christian Goldammer, Dörte Heger, Verena Niepel, Frank Schilbach, Cedric Schwalm, Christopher Sheldon, Bjarne Steffen, Armin Rick, Sebastian Wilde and Michael Ziegelmeyer. They helped us to clean the data, to put them into user friendly shape, to impute missing values, and to perform all the other many rarely appreciated computational steps that are needed to make the data useful for researchers.

The SAVE data are available free of charge for every scientific user. They are stored at the Zentralarchiv für Empirische Sozialforschung in Cologne. Information about the SAVE survey and how to download the data is available at www.mea.uni-mannheim.de under the keyword “SAVE”. Use the data, explore it! Help us to better understand saving behavior.

2. Why do we need a SAVE survey?

Understanding why people save, and what they invest in, are questions of central importance to economists. The ongoing reform of the pension system and the introduction of participant-managed defined contribution plans in Germany as well as in many other western countries make these questions even more important for policymakers, who need to correctly understand the saving behavior of households to design successful policies[3].

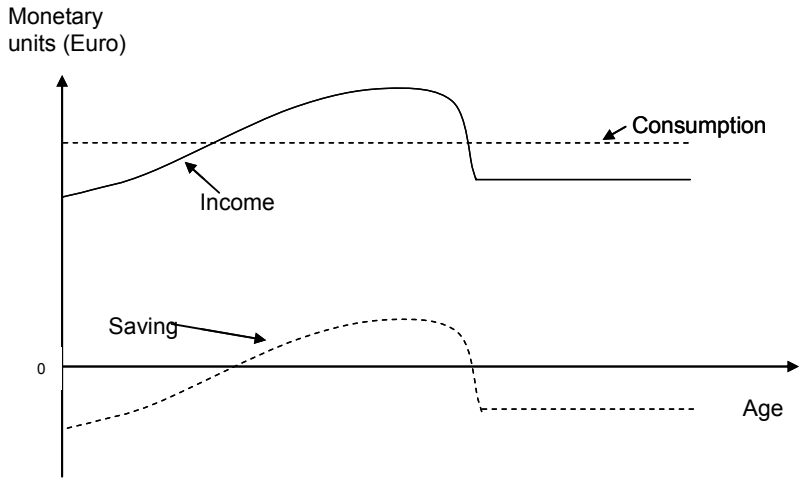
Economic theory gives a lot of structure to understand saving behavior, summarized in this chapter. Nonetheless, many questions remain unanswered by current saving theories. That is, as pointed out in the introduction, why we need the more modest attitude of collecting data, observing actual behavior, and learning from what we have observed.

The traditional framework used for studying savings and wealth accumulation has been a model based on the so called life-cycle hypothesis (LCH), inspired by the works of Modigliani and Brumberg (1954) and Friedman (1957). This model posits that individuals are rational forward looking agents that plan their consumption and saving needs over their entire lifetime. Households, in other words, after taking into account their lifetime earnings and asset returns, plan the optimal amount of consumption (and therefore of saving) in each period, so that

[3] On the link between the underpinnings of saving behaviour, portfolio choices and economic policy conclusions see Börsch-Supan (2005).

the marginal utility of consumption stays constant over time. As a consequence, saving should be higher in periods where a household enjoys high income, so that the saved amount can be used to sustain the consumption level in years with lower or no income at all. The resulting life-cycle profile of saving illustrated in Figure 1 is well known: individuals are hypothesized to borrow at the beginning of the career, when their wages are still low. As earnings increase they start accumulating a sufficient amount of wealth that will be decumulated after retirement, since pension benefits are usually lower than the income from work.

Figure 1: Income, consumption and life-cycle saving



On balance, the life-cycle framework explains reasonably well some observed patterns of household saving behavior (Browining and Crossley, 2001). Households smooth their consumption to some extent

over the short and the long horizon. While credit constraints prevent young households from taking up too much formal debt, they generally have few assets. Prime-age households save more and thus accumulate assets. As they age, people consume some part of their stock of wealth.

In recent years, however, an increasing body of empirical evidence emerged which is at odds with the stark predictions of the life-cycle model in its simple textbook version. U.S. workers, for example, save less than predicted to support their consumption after retirement. Hence, they experience an unexpected decline in their standard of living (Lusardi 1999, Bernheim 1993; Banks et al. 1998; Bernheim et al. 2001; Hurd and Rohwedder 2003). In Germany, households appear to save substantial amounts even in their old age (when a decumulation of the financial assets would be predicted by the life-cycle hypothesis) and despite a very generous pensions and health systems that used to provide a high and reliable level of retirement income (Börsch-Supan et. al. 2003b).[4] A similar trend emerges also looking at Italian data (Ando et al. 1993). The appropriateness of using the life-cycle framework to model individuals' saving behavior was therefore questioned. Laboratory tests and field studies stressed that people are much more short-sighted and much less able to process economic and financial information than their rational counterpart assumed in the economic models (see for example the seminal papers of Strotz 1955, Kahneman and Tversky 1979, Thaler 1981. For a review of the most influential studies see the surveys by Browning and Lusardi 1996,

[4] See Feldstein (1974) on the negative link between social security system and private savings within a life-cycle model.

Camerer and Loewenstein 2004, Mitchell and Utkus 2004 and the book of Wärneryd, 1999).

Starting from the observation that the actual individuals' behavior regularly deviates from the one predicted by simple economic theory, several scholars aimed at improving the explanatory power of the economic saving theories by providing them with more realistic psychological foundations, eventually generating the new field of *Behavioral Economics*. This research is having a profound effect on the way analysts now view various aspects of economic and financial life and it is attracting a growing deal of consensus.

In the models of Behavioral Economics, the *homo oeconomicus* adopted in the traditional economic theory looses part of his rationality and gets more human traits. The typical economic agent does not necessarily forecast the future and optimize his choices according to complex mathematical models; he rather uses heuristics and rules of thumb to make decisions, or, like many of us, he may lack the necessary willpower to save today in favor of a higher consumption tomorrow; he is confused by uncertainty and ambiguity about the future, and he is prone to stick to initial decisions even when they are not optimal anymore due to external conditions that have changed in the meantime.

The introduction of such features (e.g., *inertia, hyperbolic discounting, ambiguity aversion*) allows theoretical models to be more general and to better explain the observed departures from the predictions of the life-cycle model. The heterogeneity of individual characteristics, however, which the Behavioral Economics approach to

savings suggests to consider, increases the amount of information needed to test theories and to inform public policies. It makes traditional databases such as general household surveys (e.g., the Current Population Survey in the U.S.) and socio-economic panels (such as the Panel Study of Income Dynamics) less adequate for these tasks, as they miss information about key aspects such as household's preferences, resources, past and current economic circumstances or expectations for the future[5].

In Germany, the data situation for analyzing households' financial behavior has been particularly limited, as the existing databases do not record detailed data on both financial variables (such as income, savings and asset holdings) and sociological and psychological characteristics. For example, the German Socio-Economic Panel (GSOEP), a yearly panel maintained by the German Institute for Economic research (*DIW*), contains rich data on households' behavior, and some binary indicators of saving and asset choices, but it covered the quantitative composition of households' asset only in 2002 and 2007, making it difficult to track in detail changes in the asset portfolios or in the amount of wealth. The official Income and Expenditure survey (*Einkommens- und Verbrauchsstichprobe*, *EVS*) conducted by the Federal Statistical Office, offers detailed quantitative information on income, expenditure and wealth, but it has no information on psychological and behavioral

[5] For a discussion on the impasse of the economic analysis due to the lack of complete and satisfactory data see Börsch-Supan and Brugiavini (2001)

aspects of the households, the survey is conducted only every five years, the sample is non-random and has no panel structure.

The SAVE survey, initiated in 2001 and produced by the Mannheim Research Institute for the Economics of Aging (MEA), aims to bridge this gap. It collects detailed quantitative information on traditional variables (such as income, earnings and asset holdings) as well as the relevant socio-psychological aspects of a representative sample of German households. The richness of the data, as well as the extremely short time after which the data are made available for analysis to the research community, make the SAVE survey a unique and particularly appropriate source of up-to-date information to better understand saving behavior and to tailor public policies.

3. Which areas should be covered by a savings survey?

The SAVE survey collects a host of factual information needed to understand saving behavior such as the amount of income spent for various saving instruments and the stocks of assets and debt. Taken together, these items form the financial balance sheet of the household.

While such accounting variables are well suited to describe saving behavior, in order to understand it, a saving survey needs to shed light on behavioral aspects of saving, in particular potential explanations and motivations for certain saving behaviors (Börsch-Supan 2000). This chapter, guided by the modern behavioral saving theories, delineates the most salient areas that are covered by SAVE for a better understanding of saving behavior.

Expectations

In decisions concerning savings, investments or retirement, expectations on the future development of key aspects (such as health status, economic growth or social benefits) play an important role as they influence individuals' behavior. Failing to take into account how individuals perceive the future, how these perceptions change when new information is available, or how quick individuals' attitudes react to a change in expectations can mislead the design or the evaluation of new policies.

For example, not considering individuals' expectations about their lifespan may overcast possible undesirable consequences of a

pension system reform that increases the direct participation of individuals in decisions regarding their future pensions. As shown in Börsch-Supan and Essig (2005b) and in Börsch-Supan et al. (2005c), Germans substantially underestimate their own life expectancy. Women aged below 30 in 2001 expect to reach, on average, age 84, about four year less than the official prediction of life expectancy. Such a mistake may have important consequences for the future well being of these individuals as it leads them to substantially underestimate the needs for financial securities to support old-age consumption. As Börsch-Supan et al. (2005c, p. 37 - 39) show, when the subjective life expectancy is considered, private savings are enough to cover the reduction in pension income introduced with the 2001 and 2004 reforms. Once the simulation is run using the *true* life expectancy, however, it turns out that 60% of the households do not have enough savings to fully cover the pension reduction and nearly one third of the households will face a serious risk of becoming poor after retirement, given that they will rely mainly on an increasingly shrinking state pension.

The SAVE survey therefore asks several detailed questions about future expectations on relevant aspects of the economic life. Some of them are presented in the sequel.

Survival

So far, no German survey contained information on subjective life expectancy. SAVE includes several questions about individual survival expectations. Respondents are initially asked to assess the average lifespan of men and women of their same age; subsequently

they are asked to evaluate if their lifespan will be equal to the average and, if not, to evaluate their own lifespan, while a further question asks to specify the reason for expecting such a difference (known illnesses or disabilities, lifestyle, longevity of other family members). Apart from allowing analysis such the one in Börsch-Supan et al. (2005c) previously cited, its inclusion together with other variables related to mortality (such as variables that measure health status) improves the explanatory power of econometric models, as it takes into account not only the objective situation (e.g., the presence of an illness) but also the individuals' subjective reactions to the objective circumstances. As highlighted in recent studies (for example Puri and Robinson, 2005), such attitudes toward life affect several labor market choices, for example the number of hour worked or retirement decisions[6]. Furthermore, the longitudinal structure of the data, and the availability of information on actual health conditions (presence of illnesses, usage of health services, smoking and drinking habits) allows observing how the expressed survival probabilities change with the arrival of new information, casting more light on the process of expectations formation.

Retirement

Retirement age is a crucial variable for policymakers because of its dramatic consequences on the burden of the public pension

[6] Chateauneuf et al. 2003 develop a new theoretical framework to model optimism and pessimism and the influence of these difference attitudes on economic activities.

system. In this respect, SAVE provides several pieces of information. Respondents are asked at which age they expect to retire, which will be their main source of retirement income (such as, among the others, public pension, occupational pension, capital from a life insurance or private pension scheme) and which pension level they estimate to enjoy, with and without a private provision.[7] Several studies have shown that these subjective probabilities are rather close to population probabilities and that they have predictive power for actual retirement (Hurd and McGarry 1995, 2002; Honig 1996, Haider and Stephens 2007). The availability of this information allows to effectively analyze the forces that drive the retirement decision or to understand the effect of environmental pressure (such as informational campaigns on pension reforms or on new financial products for old-age provisions) on households' behavior. For example, Essig (2005a), comparing the answers given in the 2001 and in the 2003 wave, observes a slight increase in the expected pension entry age, that can be explained with the exacerbated pension system discussion during 2003.

Earnings and unemployment:

Expectations about earnings or unemployment are particularly important in shaping household's saving decisions and consumption paths (Kimball 1990, Deaton 1991, Carroll 1992, 1997; Carroll and Samwick 1997; Stephens 2004). Furthermore, unemployment

[7] In 2006 it was also included a question on the expected ability to work after age 63. The answers to this question are used in Scheubel and Winter (2008) to analyze the implications of gradually raising the retirement age in Germany.

expectations are particularly relevant to understand retirement decisions, since a job loss in older ages frequently leads to early retirement (Boskin and Hurd, 1978; Haveman et al, 1988; Kohli and Rein, 1991; Riphahn, 1997). To assess these issues, SAVE respondents are asked to judge the likelihood of an increase in their income in the next year, of receiving a big inheritance or donation in the next two years as well as the probability of becoming unemployed in the current year.

Personal and parental attitudes

Together with expectations, individual preferences and attitudes toward risks shape decisions concerning consumption, savings and investments in a fundamental way. One of the innovations brought in the profession by Behavioral Economics is the concept of *bounded self-control* (see Thaler 1981) and *hyperbolic discounting* (Thaler and Shefrin, 1981; Laibson, 1997; Laibson et al. 1998). According to this view, individuals tend to overvalue the present and place a lower value on future benefits, therefore failing to save an adequate amount of resources to sustain a desirable consumption level in the future[8]. Another relevant psychological feature introduced by the behavioral approach is that of *inertia*, namely the fact that individuals prefer to adopt default options rather than making active choices (Madrian and Shea 2001, Choi et al. 2001; Choi et al. 2003). For example in the U.S., participation rates in saving plans increase drastically when automatic enrolment is set as default option; at the same time, once enrolled,

[8] See also Gul and Pesendorfer 2001, 2004.

participants tend to remain with the assigned saving rate and investment choices. For a policy design, *inertia* has important side effects that have to be considered: the introduction for workers of automatic enrolments in saving plans can fail to increase overall saving rates, if the fall in savings for those who would have enrolled at higher rates (and that remain instead with the default participation rate) offsets the increase in savings for those who would have not saved (and find themselves enrolled).

Taking into account these individual attitudes, and understanding how they are affected by sociological factors such as education, wealth or parental attitudes, is even more important when political reforms shift the responsibility for decisions concerning the future from state to individuals – as in Germany, where the recent reform of the pension system reduces state-defined pension benefits and attempts to increase individually determined private pension plans[9]. The reduction in unemployment benefits through the so-called Hartz laws also shifts responsibility from state to individuals, as does the reduced coverage of the public health insurance in Germany.

The SAVE survey therefore reports information on several respondents' characteristics from which is possible to infer individual preferences on financial planning. For example, respondents are asked to place themselves on a scale from 0 to 10 in terms of two different personality types, where 0 represents the type of person that plans very little the future and 10 represents the type of person that thinks a lot

[9] For an overview of the reforms of the pension system in Germany see Börsch-Supan and Miegel (2001); Börsch-Supan and Wilke (2004).

about the future. In another question, they have to repeat the evaluation, where 0 represents now an impulsive type of person and 10 represents a person that takes time and weigh things up before making a decision. They are also asked to judge how much they are open to change, how much they are creatures of habits or how much optimist they are. From all these answers, it is possible to obtain hints about the individual degree of inertia or of impatience, and to analyze how this affects saving and investment decisions.

Another set of questions focuses on individual's attitudes in the past or on parental attitudes that may have influenced individual's actual preferences. Respondents, in fact, are asked if, as children, they used to receive an allowance and if they used to spend it immediately; they are also asked if their parents are/were adventurous or if they used to plan the future in great detail.

Finally, several questions on willingness to assume risk in specific areas (such as health, career or financial matters) offer further insights on the degree of individual risk aversion. Understanding if actual households' asset choices are in line with households' risk attitudes is important for policymakers: if discrepancies emerge, in fact, there is room for policies that can improve both household and social welfare.

Saving motives

The departure from the classical life-cycle model leaves the ground for the introduction of many different saving reasons in theoretical models: while in the life-cycle framework the only motive

for saving was to deal beforehand with a perfectly forecasted income reduction, in behavioral models other circumstances may lead to save. For example, given the uncertainty about the future, households may want to accumulate wealth to shield themselves against shocks to income (Deaton, 1992, Chapter 6; Caballero, 1990; Carroll, 1994; Zeldes, 1989; Cagetti, 2003) or to cope with uncertainty in other economic circumstances, such as the size of future health costs (Palumbo, 1999; Hubbard et al. 1995). In the model derived by Deaton (1991) and Carroll (1997), individuals have a target wealth-to-income ratio (a buffer-stock) in mind to insure themselves against risk; therefore saving will increase when wealth goes below the target and it will decrease otherwise. Such a model is appealing, first, because using a certain wealth-to-income ratio to determine savings is an easy rule of thumb, aligned with the suggestions of many financial planners. Secondly, such a model can explain why consumption patterns follow closely income patterns rather than being smoothed over the life cycle. Many other reasons, ranging from the desire to leave a bequest or to buy house, to that of paying back debts, may drive the saving decision. As many of these motives may exist at the same time for the same household, it is hard to disentangle one reason from the other, making empirically difficult to measure the relevance of each of them.

SAVE offers a good deal of data to control for such factors. Households who participate in the SAVE survey are asked to evaluate with respect to importance – using a scale from 0 (not important) to 10 (extremely important), nine saving reasons: saving to buy a home, to protect themselves against unforeseen events, to accumulate old-age

provision, to payback debts, to travel, to make major purchases (as a new car or furniture), to finance the education of the children/grandchildren, to leave bequests and to take advantages of government subsidies. Furthermore, an extra question, modeled on the successful example of the American Survey of Consumer Finance (SFC) (Kennickell et al. 1997, 2000; Kennickel and Lusardi, 2005), allow eliciting the size of the buffer-stock, asking directly the amount of savings desired to cope with unexpected events.

The possibility to test directly the relevance of different saving reasons can give interesting highlights. Reild-Held (2007), for example, reaches two important conclusions, starting from the observation that saving to leave a bequest is only a secondary saving reason for the German households, and that for households with a lower degree of education, the bequest motive is more important than financing the children's education. On the one hand, an estate tax is expected to have a negligible effect on private saving; on the other hand, however, the taxation of even small bequests will have undesired distributional effects, as it affects mainly children of poorly educated households, whose parents preferred to leave a bequest rather than investing in the human capital of their offspring.

Essig (2005b) and Schunk (2007) find that the relevance assigned to the saving reason "old-age provision" has a significant and positive effect on the households' saving rates: the association between the importance of certain saving reasons and observed saving behavior suggests that policy reforms that change the ranking of different saving motives may actually alter household saving behavior in several ways

and with differential effects over the life stages. Already Eymann (2000) and Börsch-Supan (2004) suggest that information and knowledge creation are important tools to modify households' financial portfolios and to boost retirement savings. Indeed, using the SAVE samples, both Börsch-Supan and Essig (2005a) and Sheldon (2006) find that German households claim to attach a relatively low importance to government subsidies as a saving motive, while the need for old-age provision is a much more important motive. This is good news: many respondents obviously understood the real reason to save for old age is the need for old-age provision.

One is tempted to conclude, if the respondents' claims were true, that some of the subsidies may be windfall gains, and the taxes used to finance those could be more efficiently used for other purposes. However, one should not rush to this conclusion too quickly. First, respondents may give socially desired answers and play down their greed for tax breaks. Second, in any case, definitive causal inference should only be drawn from an experimental setting where some persons receive a subsidy and others do not.

4. The design of SAVE: Structure and statistical issues

This methodological chapter describes the design of the SAVE panel. Special care has been taken in designing the survey to exclude or reduce as far as possible threats to data validity that may stem from different sources, such as sample selectivity and missing or invalid answers. Using contributions from several disciplines (such as psychology, statistics, economics) as well as the most recent technical and organizational procedures developed to collect and post-process survey data, SAVE offers to researchers and economic analysts detailed and, at the same time, accurate information on sensitive financial topics. Four aspects are particularly important and will be discussed in this chapter in some detail: the structure of the questionnaire (Section 1), the interview mode (Section 2), the representativeness of the sample (Section 3) and the handling of missing data (Section 4).

4.1 The questionnaire

A correct design of the questionnaire is the first step to reduce errors in the answers and to encourage participation. What is true in general, is particularly important for the highly sensitive items in household finances. The main variables of interest in the SAVE survey, such as household wealth and indebtedness, are even from a theoretical point of view hard to quantify. For normal households, financial concepts are often unclear or very complicated. Hence, the researchers at the Mannheim Research Institute for the Economics of Aging (MEA)

spent a long time and used all available experience to structure and phrase questions in a way to avoid respondents from giving wrong answers or, in the worst case, to quit the interview.

We departed from the survey instruments and the experiences made by other surveys, most significantly the U.S. Survey of Consumer Finances (SCF), the Banca d'Italia Survey on Household Income and Wealth (SHIW), the Dutch CentERpanel, and the U.S. Health and Retirement Study (HRS). For household composition and similar socio-economic background variables, we consulted the German Socio-Economic Panel (GSOEP). The "Soll und Haben" survey has been used to refine certain wordings of questions and their associated answering scales.

Researchers at MEA then cooperated with the Mannheim Center for Surveys, Methods and Analyses (ZUMA), TNS Infratest Social Research (Munich), Psychonomics (Cologne) and Sinus (Heidelberg) to optimize the wording of the questions in terms of an intuitive correct understanding.

The result of this effort was questionnaire designed such that the interview does not exceed 45 minutes on average. It consists of six parts, briefly summarized in table 1.[10]

[10] A complete version of the questionnaire is presented in Section 7.1.

Table 1: Structure of the SAVE questionnaire

Part 1:	Introduction; determining which person will be surveyed in the household
Part 2:	Basic socio-economic data of the household; health questions (since 2005)
Part 3:	Qualitative questions on saving behavior, income and wealth
Part 4:	Quantitative questions on income and wealth
Part 5:	Psychological and social determinants of saving behavior
Part 6:	Conclusion: interview-situation

The first part consists of a short introduction that explains the purpose of the study and describes the precautions taken with respect to confidentiality and data protection. As the questionnaire deals with very personal topics, this introduction was considered important to make the respondent more comfortable with the sensitive questions. The part also ascertains the household's composition.

The second part asks questions on the socio-economic structure of the household such as age, education, and participation in the labor force. Since 2005, this part also inquires about the health situation of the respondent and his/her partner.

Part three contains qualitative and simple quantitative questions on saving behavior and on how the household deals with income and assets, including which type of investments are selected for one-off injections of cash, how regularly savings are made. It also includes questions about the subjective importance of several saving

motives, about saving decision processes (specifically rules of thumb), and attitudes towards consumption and money.

The most critical part of the survey is the fourth part. It includes a comprehensive and detailed financial account of the household, touching therefore very sensitive items. Respondents are asked questions on their income from various sources, holdings of different assets, private and company pensions, ownership of property and business assets, and debt.

The survey instrument then eases out with questions about psychological and social factors. This fifth part concerns expectations about income, the subjective assessment of the economic situation of the household, health, life expectancy and general attitudes to life.

Finally, the sixth part concludes with an open-ended question about the interview situation and general comments. At this point,[11] German law also requires that respondents are asked about their consent to keep their addresses to have the possibility of conducting a further survey in the future.

4.2 The interview mode

The interview mode greatly influences the quality and the quantity of the answers collected. As conceptualized by Tourangeau

[11] This is, at the end of a tiring interview, of course not an ideal moment which leads to substantial initial attrition. The consensus for being contacted in the future, however, is asked only the first time the interview is conducted: in the following years the consensus is presumed and the question is not repeated. Therefore, since 2007, the question is not anymore in the questionnaire.

and Smith (1996), accuracy, reliability and item non-response in a survey are influenced by psychological variables (i.e. privacy, legitimacy and cognitive burden), which in turn are influenced by the mode of data collection. This is particularly salient in the sphere of income and financial wealth addressed in the SAVE questionnaire because it is regarded as highly sensitive to German households. There are many trade-offs and conflicts. For example, a self-administered "Paper and Pencil" questionnaire (P&P) may result in a higher perceived level of privacy, whereas the presence of an interviewer in a "Computer Aided Personal Interview" (CAPI) may help convince respondents of the legitimacy and scientific value of the study.

Another non-trivial aspect which has to be considered concerns survey costs. Surveys are *per se* very expensive, but some interview modes are much more expensive than others. In particular, CAPI interviews are more expensive that P&P due to the high programming costs, which are only partially offset by data input costs. Obviously there are trade-offs between costs and results, but not for all the variables improvements in the results may justify the higher costs, especially in a panel survey where the questionnaire is only slightly modified from year to year.

To test which interview mode was better suited for the critical financial questions and which one was offering the best price-quality ratio, the first SAVE wave (run in 2001) included an experimental component. Five versions of the survey were prepared. The first two versions were CAPI, while the fifth one was a conventional P&P

questionnaire. Versions 3 and 4 mixed modes: the basic interview was CAPI, while the critical and sensitive part 4 of the questionnaire was P&P.

Table 2 summarizes the experimental design of SAVE 2001. Versions 1 through 4 were randomly assigned to a quota sample of 1200 observations (see the following subsection). In version 1 and 2, all questions were administered in the presence of the interviewer, while in version 3 and 4 this critical part was left as a P&P questionnaire dropped by the interviewer to be answered in private ("P&P drop-off" in the following).

Version 1 and 2 were used to test different question modes. In version 1, the questions asset holdings were presented using an open-ended format (i.e., numerical amount in currency units, at that time Deutsche Mark) with a follow-up when respondents did not respond. In version 2, the respondents were presented with pre-defined brackets that were randomly named (e.g. S=0 - 1000 DM; C=1000 - 2000 DM; etc.) to create anonymity in spite of the presence of the interviewer.

Version 3 and 4 differed in the way the P&P drop-off was collected. In version 3 the interviewer came back personally to collect the drop-off questionnaire, while in version 4 the participants, using pre-paid envelopes, had to return it by mail within a certain number of days. If, after this deadline, the questionnaire was not returned, the respondent was reminded several times by telephone.

Finally, version 5 was all paper and pencil. This version was administered to an access panel of 660 respondents with previous survey experience (described in the following subsection).

4.2 The interview mode

Table 2: Experimental Design of SAVE 2001

	Version 1	Version 2	Version 3	Version 4	Version 5
Mode: parts 1, 2, 3 and 5	CAPI	CAPI	CAPI	CAPI	P&P
Mode: part 4 (sensitive items)	CAPI	CAPI	P&P (pick-up)	P&P (mail-back)	P&P
Return rate extra P&P part			98.0%	90.5%	n.a.
Question format: assets	Open-end	Brackets	Open-end	Open-end	Open-end
Number of households	295	304	294	276	660

Essig and Winter (2003) analyzed the resulting SAVE 2001 data. The main lesson was the superior value of the mixed-mode interview strategy in versions 3 and 4. In comparison with the CAPI mode in part 4, not only the rate of non-response to the sensitive financial questions was significantly lower in the P&P drop-off, but also the accuracy of the responses was higher. Therefore, part 4 of the questionnaire was presented as P&P drop-off in all following waves. The return rates for the drop-off questionnaire were significantly lower in version 4 than in version 3 (90.5% vs. 98.0%). Hence, the drop-offs were picked up by the interviewer in the following waves. For the access panel of respondents with survey experience, the P&P design (version 5) gave even lower item non-responses rates than version 3. Hence, this cost-effective mode was continued in all following waves.

4.3 Sample design and representativeness

Sample representativeness is critical for empirical research: the strength of statistical inference ("external validity" in social science language) relies on the extent to which the sample is representative of the population, or, in other words, by how similar the sample and the population of interest are in all relevant aspects.

The final composition of the sample is determined *ex ante* mainly by two factors: the sampling technique adopted which affects the selection of the units, and the conduction of the field work which determines systematic and idiosyncratic observation losses. Even after the selection of a good sampling scheme and a careful conduction of the field work, however, the sample may not perfectly resemble the population of interest due to random deviations in a small sample. Using weighting factors to recalibrate the relative presence in the sample of different socio-economic groups is therefore a common way to improve *ex post* the representativeness. Finally, specific items in the questionnaire may raise resistance to answering. For example, some individuals are perfectly willing to go through the entire questionnaire except for the wealth questions which they regard as too personal. Skipping responses to specific question is called item non-response (in distinction to unit non-response if respondents refuse to participate at all in the survey). The following subsections discuss these four aspects (sampling scheme, loss of observations, weights, and item non-response) in relation to the SAVE survey.

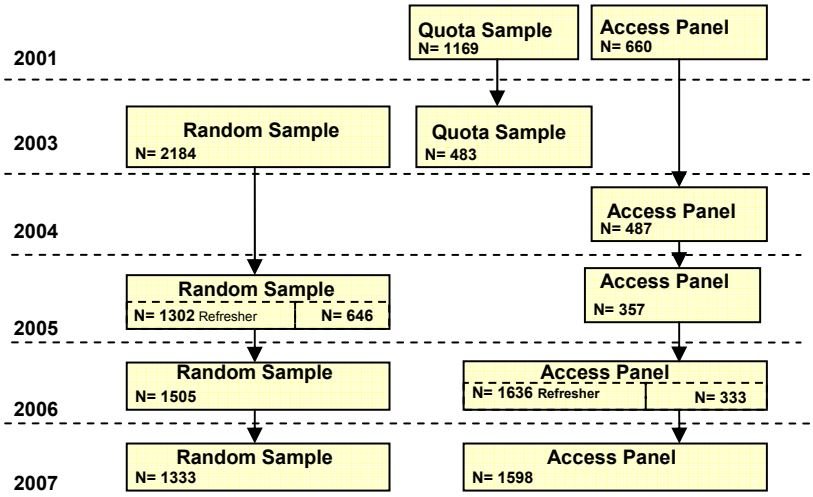
4.3.1 Sampling technique

The process of selecting units from a population of interest to obtain a sample goes usually under the name of *sampling*. There are several schemes that may be used to sample from a population, each of them entailing pros and cons. SAVE has a rather complex design with various sampling schemes. This is due to the experimental nature of SAVE in its first waves when we wanted to find out which sampling and interview techniques are most successful in generating high household response rates (see 4.3.2), a high willingness to stay in the sample for future waves of interviews (see 4.3.3), and a low number of missing items of the questionnaire (see subsection 4.4). Figure 2 shows the various subsamples of SAVE.

As described in the previous subsection, the SAVE survey started in 2001 with a set of experiments about the optimal choice of the interview mode. These experiments were performed in a *quota sample* of about 1200 observations drawn for the purpose of comparing response behavior, and split randomly in four subsamples of about 300 respondents each. In quota sampling, the participants are selected by the interviewer to fulfill certain predetermined quota targets related to certain characteristics (such as gender or age) of the underlying population, so that in the final sample the proportion of observations with those characteristics is exactly the same as in the population. For the construction of SAVE 2001, the quota targets were based on the official population statistics (taken from the micro census for the year 2000) and the characteristics considered were gender, age, household size and whether the respondent is a wage earner or a salaried

employee. These experimental samples were discontinued after one re-interview in 2003 to obtain data on attrition rates.

Figure 2: SAVE sample design



The main scientific *SAVE Random Sample* started in 2003. Random sampling is the classical sampling scheme for scientific purposes. Statistical theory shows that it offers unbiased estimation results with higher precision than any other sampling scheme, given the usual lack of knowledge about household characteristics in the population. It provides well-defined sampling errors. The 2003 random sample of SAVE was drawn by a multiple stratified multistage random route procedure, described in detail by Heien and Kortmann (2003). Since this turned out to be costlier than expected, the *refreshment to the random sample* in 2005 used a large sample drawn from the

community-based German population registers ("Einwohnermeldeamtsstichprobe") in a multistage procedure. In a first stage in 2004, a sample of about 20,000 respondents was drawn from the registers to participate in several brief surveys on financial behavior ("Finanzmarktdatenservice"). Of those, we draw in a second step 4500 households for participation in the SAVE panel.[12]

The third sample, the so-called *TPI Access Panel*, is a standing panel of household surveyed at regular intervals, operated by the company TNS Infratest TPI (Test Panel Institute, Wetzlar). The access panel is characterized by well-known response behavior and a well-defined distribution of core socio-demographic characteristics. Participants of the access panel were collected using a similar quota sampling technique as described above. For example, the *refreshment to the* a*ccess panel* in 2006 used sex, residence in West or East Germany, age, marital status, household size, occupational status (employed, unemployed, pensioner) and professional status (employee, self-employed, civil servant) as stratifying characteristics.

The fact that the choice of the respondents was done by the company to fulfill certain pre-set characteristics introduces non-randomness.[13] This is the main weakness of the access sample which may induce bias due to characteristics not represented by the quota sampling scheme, for example the willingness to cooperate. Such

[12] In the second stage, the respondents were explicitly asked to stay in a four-year panel study. See the next subsection for the resulting response rates.
[13] See King (1983) for a review of the principle source of bias induced by the quota sampling.

unobserved characteristics may be correlated with items of research interest, such as participation in state-sponsored old-age savings schemes, and hence create sample selectivity.

Despite these well known disadvantages, they are actually the flip-side of reasons that speak in favor of an access panel, for example the fact that unit and item non-response are significantly lower than in a random sample. The analyses in chapter 5 of this book are based on the SAVE Random Sample for scientific strictness. As it turns out, however, results from the TPI Access Panel are very similar. For cost reasons, we therefore continued the access panel rather than doubling up the random sample, but keep the samples separate to retain the ability to perform selectivity checks.

4.3.2 Household response

Once a sample has been established, the interviewers contact the households in the sample. This is not always successful. We therefore distinguish the gross sample (all households that we would like to interview) and the net sample (all households that we actually did interview). The ratio is called *response rate*. It is usually split up in two elements: neutral and non-neutral failures to obtain an interview. Neutral failures are supposedly innocent with respect to selectivity biases. Examples are invalid address, respondent died between sampling and interview, etc. In general, these are cases in which the household could not be contacted even in principle. The percentage of households that could be contacted in principle in the gross sample is the *contact rate*.

The remaining failures are deemed non-neutral failures which potentially create selectivity biases. Examples are refusal, the inability to track a household who has moved, or a long-term illness. The ratio of completed interviews in the gross sample minus neutral failures is called *cooperation rate*. The distinction between neutral or non-neutral is somewhat arbitrary and depends on the research question.

Cooperation is lower in Europe than in the United States and has dramatically declined over the recent years. The Italian SHIW, for example, had a peak response rate of 46.7% in 1995. It declined to 36.6% in 1998, 27.5% in 2000, and 25.7% in 2004.[14] The new Spanish Survey of Household Finances (EFF) achieved a response rate of 25.8% in 2002.[15] In the U.S. American SCF, the response rate in 1995 was 66.3%, about the same in 1998, and slightly increased to 68.1% and 68.7% in 2001 and 2004, respectively.[16] Other surveys in the U.S., for example the U.S. Health and Retirement Study (HRS) is also featuring a decline in response rates (from over 80% in the 1990s to about 69% in 2004).

It should be stressed that the comparison of response rates is a tricky business since the definitions change and depend on the sampling scheme. The harshest definition applies to gross samples drawn from a

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[14] See Banca d'Italia (1991, 1993, 1995, 1997, 2000, 2002, 2004 and 2006). The response rates refer to the refresher samples taken from 1989 through 2004.

[15] See Bover (2004). The response rate refers to the overall sample of the first wave in 2002.

[16] See Kennickell and McManus (1993) and Kennickell (2000, 2003, and 2005). The response rates refer to the cross-sectional area probability samples taken in 1992 through 2004.

population register (such as in Italy and Spain), while samples based on certain random route procedures will not be able to count a host of non-neutral failures as part of the gross sample and therefore achieve much higher response rates. In many of these cases, a narrowly defined cooperation rate (such as number of refusals divided by the number of refusals plus completed interviews) may be a more comparable measure. Bover (2004) compared the 2002 EFF with the 1992 SCF by wealth stratum. She found "a clear non-random component in cooperation rates decreasing as we move up the wealth strata … ranging from 53.6% to 29.4%" in the EFF. She then constructed comparable cooperation rates by wealth stratum for the 1992 SCF and found that "cooperation rates for the list sample ranged from 52.6% for stratum 1 to 20.1% for stratum 7".[17]

In the first *SAVE 2003 Random Sample*, the strictly defined response rate was 46.1%, while the cooperation rate defined like in the EFF-SCF comparison was 44.3% across the entire sample, see table 3. Since no information about wealth is available for the non-interviewed households, a meaningful stratification of the response rates by wealth corresponding to the above figures of the SCF and EFF is not possible.

[17] Bover (2004), p.15.

Table 3: Unit response rate in the SAVE 2003 and 2005 random samples

	2003 Random Sample	2005 Refresher Sample
Sampling scheme	Random route	Population registers
Cooperation rate	44.3%	49.7%
Response rate	46.1%	39.5%

Cooperation was slightly higher at 49.7% in the *SAVE 2005 Refresher Random Sample*, given that they had participated in the pre-studies. However, the overall response rate was substantially lower (39.5%). One likely reason is that potential respondents were asked to stay in a panel at least until 2008 even before we interviewed them in the first wave. Here, our strategy was to minimize panel attrition (see next subsection) at the expense of a lower initial response rate. This strategy was chosen in the light of a rich set of household characteristics that was available from the pre-studies. These household characteristics allow for the estimation of meaningful sample selectivity correction models.

4.3.3 Attrition

The response rates discussed in the previous subsection refer to newly drawn samples. In datasets with a panel structure (that is, dataset where the same units, individuals or households, are re-interviewed at regular intervals), it is also important to monitor *panel mortality*, defined as the loss of observations from one wave to the other, a phenomenon also known as *attrition*. Panel mortality includes actual mortality as well as technical (person moved to an unknown or

unreachable destination) and other reasons (illness, refusal to further participate, etc.). Since German law prescribes that at the end of wave t, respondents have to be asked whether their address may be stored for a potential further interview at time t+1, refusal may take place twice: at the end of the interview in wave t as well as before an interview in wave t+1. [18]

Panel attrition rates tend naturally to decrease over time, as reluctant respondents drop out of the sample in the first waves. The effect is well visible in the early Italian SHIW, where from 1989 to 1995 the panel response rate increased from 23.3% to 77.8%. In 2002 and 2004, the panel response rate had stabilized at around 75%.[19] While this natural selection improves the stability of the sample, it may induce self-selection bias, because people who remain in the sample may not be representative of people who drop out.

To keep a large number of participants in the sample and to reduce the dropping out of reluctant respondents, several strategies have been applied, all part of "panel care". Examples are sending a letter explaining the aim of the study; broadcasting before the interview a short motivation video emphasizing the importance of the survey; sending Christmas or Easter cards; and informing respondents about the results of the study so far. In particular, as a large literature describes the positive effects of financial incentives on reducing the unit non-

[18] [18] Since 2007, however, the question is not asked anymore, and the refusal can take place only before the interview in wave *t* +1. See footnote 9.
[19] See Banca d'Italia (1991, 1993, 1995, 1997, 2000, 2002, 2004 and 2006). The panel response rates refer to the part of the sample that was selected to be re-interviewed.

response rates (Brennan et al. 1991; Porst, 1996; Klein and Porst, 2000; Singer, 2002), panel participants are rewarded either small presents or cash.

Table 4 shows the development of the panel and our learning process from 2003 to 2007. After the first interview in 2003, more than a third of the successful respondents refused to give permission to retain their addresses for future contact. Of those, who gave permission, only 54.1% successfully completed a second survey, while 14.7% dropped out "neutrally" and 31.2% refused after the break of two years.

Table 4: Retention in the SAVE panel: 2003 through 2007

	2003 – 2005	2005 - 2006	2006 - 2007
No permission to keep address	37.2%	11.6%	0.00%
Cooperation rate	68.8%	93.8%	93.6%
Response rate	54.1%	89.0%	90.0%
Retention rate	29.6%	77.3%	88.6%

After the 2005 wave, we introduced small presents (value between 5-10 Euro) and money (20 Euro) as incentives.[20] Respondents were informed about the scientific results in a small brochure and received a greeting card for Easter. Moreover, new panel members were explicitly asked to be prepared to stay in the panel at least until 2008.

[20] For further details on the various incentives handed out to the participants in each wave see Schunk (2006).

The high response rates attained in the last waves of the survey and the stability of the sample size highlight the effectiveness of these strategies.

The high retention rates in SAVE are encouraging and demonstrate that a panel on household finances is feasible. It should be noted, however, that the high retention rates came at the costs of a heavy pre-selection in the early stages, as it did in the Italian SHIW. The Spanish EFF, in its first re-interview in 2005, lost about 25% of the panel members due to "neutral" failures. Among the remaining respondents, the cooperation rate was about 67% such that about half of the 2002 respondents also delivered an interview in 2005.[21] After this pre-selection, retention in the third wave of the EFF will most likely be much higher. Since the U.S. American SCF is purely cross-sectional, we do not have comparable figures for this pre-selection and stabilization process. Serious scientific studies need to model the pre-selection process. Since we have rich data of the respondents who drop out during this process from earlier waves, selectivity models of panel mortality are much easier to estimate than in cross-sectional data from highly selective samples.

Table 5 depicts attrition rates by age and income. There is no clear pattern although attrition is, generally, highest among the young (with the exception of low incomes between 2005 and 2006). Most fortunately there is little systematic influence of socio-economic status, here measured by income, on attrition.

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[21] Preliminary estimates, communicated by Olympia Bover.

Table 5: Attrition in SAVE

Age	All income categories	Net Monthly Income		
		Below 1,300	1,300 –2,600	Above 2,600
Cell counts in 2005				
Under 35	362	169	132	61
35 – 54	740	188	302	250
55 and older	846	236	407	203
All age categories		593	841	514
Households in the 2006 sample by 2005 age and income categories				
Under 35	283	145	93	45
35 – 54	578	145	237	196
55 and older	644	171	315	158
All age categories		461	645	399
Households in the 2007 sample by 2005 age and income categories				
Under 35	240	121	81	38
35 – 54	516	125	213	178
55 and older	577	154	282	141
All age categories		400	576	357
Attrition rates between 2005 and 2006				
Under 35	-21.82%	-14.20%	-29.55%	-26.23%
35 – 54	-21.89%	-22.87%	-21.52%	-21.60%
55 and older	-23.88%	-27.54%	-22.60%	-22.17%
All age categories		-22.26%	-23.31%	-22.37%
Attrition rates between 2006 and 2007				
Under 35	-15.19%	-16.55%	-12.90%	-15.56%
35 – 54	-10.73%	-13.79%	-10.13%	-9.18%
55 and older	-10.40%	-9.94%	-10.48%	-10.76%
All age categories		-13.23%	-10.70%	-10.53%

4.3.4 Weights

Even after the selection of a good sampling scheme and a careful conduction of the field work, a sample of a finite size usually does not perfectly resemble the population of interest. Therefore it is useful to use some rescaling factors or *weights* to improve the representativeness of the sample. Specifically, if we have a *population* of *N* units that can be partitioned into *K* cells of size N_k, *k=1,..,K*, such that $\sum_k N_k = N$, and we have a *sample* of size *n* from this population which can be similarly partitioned into *K* cells of size n_k such that $\sum_k n_k = n$, weights are computed as the ratio of the population share N_k/N divided by the sample share n_k/n. In practice, we usually do not have population data but use a "calibration survey", such as a census, to approximate the cell shares in the population. Using these approximate cell shares $\tilde{N}_k/\tilde{N}$ in the above ratio produces so-called "calibrated weights".[22]

In our case, we have split up the observations into K=9 cells according to 3 age classes (18 to 34, 34 to 45, and 55 and older) and 3 income classes (below €1,300, between €1,300 and €2,600, and above €2,600). The calibration data set is the *Mikrozensus* (the official representative population and labor market statistic of the German

[22] Calibrated weights are different from design weights which are based on the statistical properties of the sampling process.

Federal Statistical Office, comparable to the U.S. Current Population Survey).[23] Since the questions on income and savings in SAVE refer to the year preceding the survey, we use the Mikrozensus 2002, 2004, 2005 and 2006 as a basis of comparison for SAVE 2003, 2005, 2006 and 2007, respectively.

Table 6 reports the weights for each cell and each year. A value greater than one implies that the cell is underrepresented in the SAVE survey in comparison with the Mikrozensus, hence must be weighted heavier to fit the population. Conversely, a value smaller than one implies that the cell is overrepresented in SAVE and must be weighted down. Overall, the values in Table 6 suggest very small differences between the *SAVE Random Samples* drawn in 2003 and 2005 on the one hand and the German *Mikrozensus* on the other hand. The effects of unbalanced sample attrition, described in the previous subsection, become visible in the 2006 and 2007 samples, in particular in the cell of young households with high income: in 2007, there are 55% more households in the *Mikrozensus* than in SAVE.

[23] The Mikrozensus involves 1% of the German population each year (roughly 370,000 households). See Statistische Bundesamt Deutschland (2006).

Table 6: Representativeness of SAVE

Age	Net Monthly Income			
	All income categories	**Below 1,300**	**1,300 –2,600**	**Above 2,600**
		Random Sample 2003		
Under 35	0.90	1.05	0.82	0.82
35 – 54	0.97	1.13	0.93	0.95
55 and older	1.08	1.29	0.91	1.24
All age categories		1.18	0.89	1. 01
		Random Sample 2005		
Under 35	0.98	0.98	1.06	0.83
35 – 54	1.00	0.83	1.01	1.11
55 and older	1.01	1.35	0.92	0.80
All age categories		1.08	0.97	0.95
		Random Sample 2006		
Under 35	1.12	0.98	1.33	1.15
35 – 54	1.04	0.82	0.99	1.29
55 and older	0.92	1.20	0.80	0.83
All age categories		1.02	0.94	1.10
		Random Sample 2007		
Under 35	1.29	1.17	1.37	1.55
35 – 54	1.06	0.92	0.99	1.26
55 and older	0.86	1.07	0.85	0.64
All age categories		1.05	0.97	0.99

As shown in Essig (2005c), the use of weights shifts the distribution of the key variables (income, savings and wealth) to the left, indicating that richer households tend to be oversampled in comparison to the micro-census. Essig (2005c) shows that similar

effects can be observed also for the other two German surveys on financial issues, namely the GSOEP (years 2000 to 2002) and the EVS (years 1998 and 2003).

The SAVE data set provides several alternative calibrated weights to those just described. For example, another weight uses household size rather than age to form the cells. We also vary the age and income classes. Details are described in Appendix 7.3. The alternative weights can be used for sensitivity analyses.

4.4 Item non-response

The last aspect that has to be handled in order to avoid threats to data validity is the *partial* lack of information, or *item non-response*. Some respondents agree to participate in the survey but do not answer certain questions such that, for some observations, we lack data on a few items. This phenomenon, well known in household surveys and analyzed by various authors,[24] can have important consequences not only for the analysis of the missing variable itself, but also for estimates of the covariance structure of all other variables. Dropping such observations from the sample will reduce sample size with an associated loss of statistical efficiency. Moreover, item non-response may not be random among the respondents, leading to biased results similar to selective unit non-response. Given these two aspects, simply

[24] See Ferber (1966), Schnell (1997), Beatty and Hermann (2002) for reviews; for Germany, recent examples are Biewen (2001), Riphahn and Serfling (2005) and Schräpler (2003).

deleting all the observations with missing items and relying the analysis only on complete-cases does not represent a desirable strategy.

For the vast majority of variables in SAVE, item non-response is not a problem. For example, hardly anyone refuses to answer detailed questions about socio-demographic conditions or about expectations. However, mainly due to privacy concerns and cognitive burden, there are much higher rates of item non-response for detailed questions about household financial circumstances. This is in line with missing rates documented in other surveys (Bover, 2004; Hoynes et al., 1998; Juster and Smith, 1997; Kalwij and van Soest, 2006), in which missing rates for questions about monthly income or about asset holdings reach peaks as high as 40%. Although the experimental component included in the first wave of SAVE was used to select the interview mode and the question format that minimize item non-response, this phenomenon is still present in the data, see tables 7 and 8.[25]

In general, item non-response is pleasantly low. Even for stocks and bonds, the conditional non-response rates (conditional on having stocks or bonds) are only 11 and 17 percent, respectively. The pattern is quite clear: the less defined the items are (such as "other assets" or "other debt") the higher is item non-response. While private old-age provision is reasonably well covered, households know very little about occupational pensions. This is troublesome for studies

[25] See Essig and Winter (2003) for an analysis of the effects of interview mode and question format on answering behavior.

which would like to explore substitution among the three pillars of old-age provision. Total net monthly household income has a relatively high non-response rate of almost 12%. This is mostly due to the necessary addition of items from various sources and across household members; non-response in specific categories, most importantly salary, wages and public pension income, is much lower.

Table 7: Item-non response rates for selected assets: SAVE 2007

Variable	Percentage missing
Saving accounts:	
Do you have it?	6.3
How many contracts? *	8.0
*Balance at the end of the end of the year**	8.8
Building society savings agreements:	
Do you have it?	6.3
How many contracts? *	4.0
*Balance at the end of the end of the year**	12.2
Bonds:	
Do you have it?	6.3
How many contracts? *	2.6
*Balance at the end of the end of the year**	16.9
Shares:	
Do you have it?	6.3
How many contracts? *	4.9
*Balance at the end of the end of the year**	10.5
Other financial assets:	
Do you have it?	6.3
How many contracts? *	1.0
*Balance at the end of the end of the year**	22.2
Life insurances:	
Do you have it?	11.3
How many contracts? *	2.9
*Balance at the end of the end of the year**	23.8
*Monthly contribution**	17.7
Occupational life insurances:	
Do you have it?	11.3
How many contracts? *	0.6
*Balance at the end of the end of the year**	31.5
*Monthly personal contribution**	38.1
*Monthly contribution of the employer**	70.2
Other occupational pension schemes:	
Do you have it?	11.3
How many contracts? *	1.9
*Balance at the end of the end of the year**	55.1
*Monthly personal contribution**	55.4
*Monthly contribution of the employer**	61.4

(continues…)

Riester-Rente:	
Do you have it?	11.3
How many contracts? *	1.7
*Balance at the end of the end of the year**	40.4
*Monthly personal contribution**	25.4
Other private pension schemes:	
Do you have it?	11.3
How many contracts? *	1.4
*Balance at the end of the end of the year**	32.3
*Monthly personal contribution**	24.7

* % of missings as a % of those who reported to have the item

Table 8: Item-non response rates for debt and household income: SAVE 2007

Variable	Percentage missing
CREDITS AND MORTGAGES	
Do you have any outstanding loan?	4.6
Building society loans (Bauspardarlehen)	
Do you have it? **	1.3
*Amount of the outstanding loan****	14.2
Mortgages	
Do you have it? **	1.3
*Amount of the outstanding loan****	12.2
Consumer credit	
Do you have it? **	1.3
*Amount of the outstanding loan****	16.1
Family loans	
Do you have it? **	1.3
*Amount of the outstanding loan****	64.3
Other credits	
Do you have it? **	1.3
*Amount of the outstanding loan****	43.3
TOTAL NET MONTHLY HOUSEHOLD INCOME:	11.6

** % of missings as a % of those who reported to have outstanding loans in general

*** % of missings as a % of those who reported to have the specific loan

Essig (2005c) has analyzed potential biases generated by item non-

response in the 2003 SAVE samples. He estimated nonresponse probabilities for monthly net household income and various asset categories. There is little structure with regard to household characteristics. Giving a Euro-amount for the net household income is more often refused by the educated, married and self-employed. For assets, he did not detect any significant household characteristics except for retirees; East Germans, female, and the more wealthy have insignificant but elevated item non-response probabilities. Interviewer characteristics and sampling strategies play a much more important role. Members of the access panel had a lower item non-response rate than those of the random sample; male, younger and more experienced interviewers generated more cooperation in answering the income and wealth questions.

Since deleting all observations with missing items is not a desirable strategy, SAVE provides estimates of the missing values using a variant of the *iterative multiple imputation* procedure developed by Rubin (1987) and Little and Rubin (2000). Similar procedures have recently been applied also to other large-scale socio-economic surveys such as the U.S. American SCF, the Spanish EFF, and the Survey of Health, Ageing and Retirement in Europe (SHARE).[26] To put it simply, this procedure consists of two steps. In a first step, the conditional distribution of the missing variables is estimated using regression methods on a sample with complete data. It is important to condition on as many variables as computationally possible, to preserve the

[26] Kennickell (1998), Barceló (2006), Kalwij and van Soest (2006)

multivariate correlation structure of the data. In a second step, a Markov-Chain Monte-Carlo method is used to replace the missing items in the full data set by multiple draws from the estimated conditional distribution. In our case, the final user has five complete datasets, with all missing values replaced by imputed values. The differences in the imputed values across those five versions reflect the uncertainty about the "true" missing value. Furthermore and in contrast with single imputation techniques, multiple imputation allow for a more realistic assessment of variances. Further details on the imputation procedure can be found in Appendix 7.2.; see also Schunk (2008).

5. Results: An overview of the German households' saving behavior

This chapter offers a detailed overview of the saving behavior of German households from 2003 through 2007. Our analyses are based on the *SAVE Random Sample* in the years 2003, 2005, 2006 and 2007.[27] The total number of observations is 2184 observations for 2003, 1948 observations for 2005 and 1505 observations for 2006.

Section 1 gives a description of our sample, Section 2 looks at saving amounts and saving rates, Section 3 discusses the various motives for saving, and Section 4 finishes with a description of saving forms and portfolio composition.

5.1 Who are the SAVErs?

Before proceeding further with the analysis, it is worth having a closer look to some general characteristics of the households in the *SAVE Random Sample*, see Table 9, and to compare them with data from the German Income and Expenditure Survey (EVS) and the German Socio-Economic Panel (GSOEP).

[27] The *Access Panel*, although based on a very different sampling scheme, produces very similar results (see Coppola 2008)

Table 9: Basic characteristic of 2003, 2005 and 2006 Random Route Samples

Characteristic	2003	2005	2006	2007
Age class				
18 – 34 years	19.3%	18.3%	19.8%	19.7%
35 – 54 years	37.4%	37.9%	39.1%	39.2%
55 year and older	43.3%	43.8%	41.1%	41.1%
Mean	51.3	51.7	50.7	51.0
Median	51	51	49	49
Marital Status				
Currently Married	58.0%	55.7%	55.0%	54.5%
Previously Married	23.1%	24.5%	23.6%	24.3%
Not Married	19.0%	19.9%	21.5%	21.2%
Education				
Basic Education (8 to 10 years)	16.7%	13.5%	11.4%	11.7%
Basic + vocational training (10 years + voc. training)	54.8%	56.9%	53.4%	53.9%
Higher secondary education (12 to 13 years)	14.3%	19.7%	19.8%	19.5%
University degree	14.2%	10.0%	15.4%	14.8%
Employment Status				
Retired	32.8%	33.1%	31.2%	30.9%
Out of the Labor Force (housewives, students…)	23.3%	13.0%	13.3%	11.3%
Military service/ Parental leave	2.3%	2.8%	2.4%	2.0%
Unemployed	10.2%	10.6%	10.9%	11.4%
Blue Collar	9.1%	11.3%	11.9%	12.4%
White Collar	14.5%	20.6%	20.9%	22.7%
Civil Servant	3.3%	2.8%	3.6%	3.7%
Self-employed	4.2%	5.7%	5.7%	5.6%

(continues…)

Characteristic	2003	2005	2006	2007
Household's Net Monthly Income (EUR)				
Below 1,300	31.8%	32.8%	32.3%	32.1%
1,300 – 2,600	42.7%	42.0%	41.9%	41.8%
Above 2,600	25.4%	25.2%	25.8%	26.2%
Mean	2,419	2,232	2,065	2,075
Median	1,800	1,700	1,700	1,800
Household Size				
Single	26.9%	27.2%	25.5%	26.9%
2 – 4 members	67.2%	66.6%	68.1%	66.2%
5 and more members	5.8%	6.2%	6.3%	6.9%
Mean	2.3	2.4	2.4	2.4
Median	2	2	2	2
Number of observations	2,184	1,948	1,505	1,333

Note: Weighted values

The structure of the sample does not change much across different waves. Since the sample is restricted to respondents aged 16 and older, the average age of the respondents is around 51 years and more than 40% of them are aged 55 years or older. A similar age structure is observable also in other German samples: in the year 2003, for example, the average age of the participants to the EVS survey was 50.4 years and 37% of them were aged more than 55 years. Similarly, in 2003 the average age of the households interviewed in the GSOEP sample was 50.5 years and 39.4% aged 55 years or more.

About 60% of the respondents are married or in a stable relationship, while 20% of them are singles. The vast majority of the sample, almost 70% of the observations, is living in households

consisting of 2 to 4 members. This is exactly as in the EVS sample: in 2003, the average EVS household consisted of 2.4 members.

Concerning educational level, in all subsamples about 70% of the respondents have at least 10 years of schooling and almost 60% completed also a vocational training, while less than 15% have a university degree. In comparison with other surveys, SAVE has slightly more individuals with a vocational training and less with a higher degree. In 2003, for example, the percentage of respondents with a university degree is equal to 24% in GSOEP and to 29% in EVS, while 47% of the respondents in EVS and 44% in GSOEP completed a vocational training.

Slightly more than 30% of the respondents are retired, with the percentage constantly increasing from one year to the other. Another 15% is out of the labor force for various reasons: some of them are still in education, others are accomplishing their military duty or they are in parental leave. The majority of the employed respondents are white collars, while only a small percentage is self-employed.

Finally, looking at the income dimension, the median household in SAVE has a net monthly income below €2,000. From 2003 to 2007 the share of households with a net monthly income below €1,300 remained fairly constant, while the share of households in the middle income class shrunk by almost a percentage points, from 42.7% of the sample in 2003 to 41.8% in 2007. This is mainly due to unbalanced attrition as described in the previous section. In comparison with the EVS and GSOEP, the income figures in SAVE are very similar. For example, taking again the year 2003 as benchmark, the

average net monthly income for the EVS households was €2.612, less than €200 higher than in SAVE. Even smaller differences emerge when comparing the income figures in SAVE with those in the German SOEP. Again in 2003, for example, the average monthly net income was €2,516 in GSOEP and €2,473 in SAVE.

5.2 How much do the Germans save?

Household saving behavior is the focus of the SAVE survey. It is tackled from several perspectives and a large number of questions in the SAVE survey instrument. This section offers an overview of the main outcomes.

5.2.1 Qualitative information

A very broad question "How do households manage to make ends meet?" opens the questionnaire section on saving behavior. Respondents are asked how well they got along with their income and expenditures over the past year, having the possibility to choose one out of five possible answers. Table 10 reports the percentages of households choosing each specific answer.

Table 10: Making Ends Meet - Savings Capability

		At the end of the month there was…				
		…always plenty of money left	**…often some money left**	**…money left only if income was obtained**	**…often not enough money left**	**…never enough money left**
Total	**2003**	9.2%	49.6%	18.3%	17.2%	5.7%
	2005	7.3%	48.5%	17.6%	20.2%	6.4%
	2006	6.6%	45.2%	16.7%	23.8%	7.6%
	2007	8.0%	40.6%	17.6%	26.1%	7.7%
		Net Monthly Income (EUR):				
Below €1300	**2003**	3.6%	40.3%	21.5%	23.3%	11.3%
	2005	2.1%	37.8%	18.4%	30.9%	10.9%
	2006	2.1%	34.0%	18.9%	31.9%	13.1%
	2007	4.4%	28.0%	16.2%	38.0%	13.3%
€1300 - €2600	**2003**	8.2%	53.2%	18.0%	17.2%	3.4%
	2005	7.4%	52.0%	18.6%	16.5%	5.5%
	2006	5.5%	48.5%	17.1%	23.0%	5.9%
	2007	6.0%	44.8%	17.4%	25.3%	6.6%
€2600 and above	**2003**	18.0%	55.1%	14.8%	9.7%	2.4%
	2005	14.2%	56.5%	15.0%	12.4%	1.9%
	2006	14.1%	54.1%	13.4%	14.8%	3.6%
	2007	15.5%	49.3%	19.5%	12.9%	2.8%

More than half of the households in all SAVE waves reported that there was at least some money left at the end of the month. Considering this answer as an indication of which households are

actually capable of saving, a constant decline in their percentage from 2003 to 2005 is observable. While in the sample 2003, 58.8% of the households were capable to save, only 48.6% were able to do so in the 2007 sample. Analogously, the percentage of households reporting that there was "often not" or "never enough" money left increased from 22.9% in 2003, to 26.5% and 31.4% in 2005 and in 2006 respectively, up to 33.8% in 2007. A two-sample t-test on the equality of proportions confirms that all these changes are statistically significant at standard confidence levels.

Did the saving capability drop equally for all the households, or was it for certain social groups stronger than for others? A look at these percentages among different income classes contributes to answering this question. It reveals that, while the percentage of household capable of savings remained fairly constant from 2003 to 2007 in the highest income class, in the lowest class this percentage dropped by a sharp 26%. While in 2003 43.9% of the households with an income below €1,300 were still able to save, only 32.4% of them were in the same condition in 2007. It is interesting to note, however, that also in the upper income class, a relatively high percentage of households (12.1% in 2003, 14.3% in 2005, 18.4% in 2006 and 15.7% in 2007) stated to be not capable to save.

5.2.2 Quantitative information

Thanks to the various quantitative questions in the SAVE questionnaire, it is possible to quantify the qualitative answers reviewed in the previous subsection into actual savings figures. For this purpose, it is important to define precisely the notion of savings.

Respondents have to answer the question "Can you tell me how much money you and your partner together have saved in the past year?" The amount stated as answer to this question is referred here as the *gross savings* over a year. Household's net borrowing, that is the borrowed amount in the form of consumption, family and other type of loans minus the amount of debt paid back in the form of all type of loans, are subtracted to the gross savings in order to derive *savings* in economic terms. Taking on new debt in form of mortgages or loans based on building savings contracts is not counted as borrowing, as for these types of loans, the household realizes an equivalent increase in capital stock (as a new house).

Using this definition, table 11 compares qualitative and quantitative answers on savings displaying mean and median saving rates dependent on the five answers to the "making ends meet" question. The saving rates seem to be consistent with the answers given regarding the capability to save: households defined earlier as capable of saving have higher saving rates than those reporting to often not or never have enough money left at the end of the month.

Table 11: Saving rate and Saving Capability

		At the end of the month there was…				
	Total	**…always plenty of money left**	**…often some money left**	**…money left only if income was obtained**	**…often not enough money left**	**…never enough money left**
			Mean			
2003	11.5%	19.9%	13.6%	8.7%	6.2%	4.4%
2005	10.7%	18.4%	13.0%	9.3%	5.8%	3.5%
2006	14.1%	30.5%	16.8%	11.2%	8.0%	8.7%
2007	11.6%	23.0%	15.2%	10.0%	6.6%	1.8%
			Median			
2003	5.9%	16.7%	8.4%	2.1%	0%	0%
2005	5.6%	12.5%	8.3%	4.3%	0%	0%
2006	6.0%	20.0%	10.1%	4.4%	0%	0%
2007	5.7%	18.0%	10.4%	5.1%	0%	0%

Note: To mitigate the effect of outliers, we report 1%-trimmed means

The structure is the same for all the samples, with the mean saving rates being around 20% for the households stating to have always plenty of money at the end of the month, and decreasing monotonically to around zero for the households in the category "never enough money left".. The median saving rates of 0% in the lowest two categories point out that the majority of households considered as not capable to save do indeed not save.

Table 12 reports gross savings, net borrowings and net savings from the three SAVE samples: the upper part of the table reports absolute values, while in the lower part are presented relative figures,

i.e. the saving rates. These are computed dividing each household's absolute figure by its net annual income, the latter being derived multiplying by 12 the joint net monthly income reported by the respondents.

According to the general savings question, households saved € 2,749 in 2002, € 2,203 in 2004, €3,423 in 2005 and €2,852 in 2006;[28] net borrowings are negative for all three years, meaning that the sampled households paid back more in debt than they took up. Since most households do not have any outstanding debt, the mean net borrowing figures are quite small and the medians are equal to zero. The significantly higher gross saving in 2005 in comparison with 2004 are partially offset by a lower net debt repayments, resulting in average net savings of €3,114 per household in 2004 and €3,896 in 2005: mean households' saving rate, however, are 3 percentage points higher in 2005 than in 2004 and the difference is statistically significant. In 2006 the households in the sample reported both lower gross savings and lower net debt repayments, resulting in net savings of €3,085 (the lowest value ever registered since 2003), while the net saving rats are back to the 2004 levels.

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[28] It is worth to remind here that respondents in SAVE are asked about their savings and income figures for the year preceding the survey. Thus, savings figures reported in the 2003 sample refer to 2002, in the 2005 sample to 2004 and in the 2006 sample to 2005.

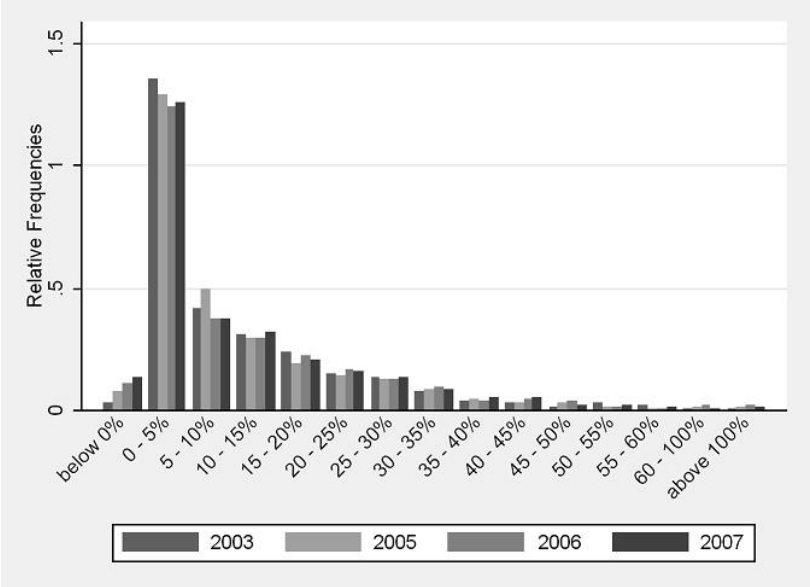
Table 12: Gross and Net Savings

	Gross Savings				- Net Borrowing				= Net Savings			
	2003	**2005**	**2006**	**2007**	**2003**	**2005**	**2006**	**2007**	**2003**	**2005**	**2006**	**2007**
						Absolute Values (EUR)						
Mean	2,749	2,203	3,423	2,852	-790	-911	-542	-232	3,539	3,114	3,966	3,085
Median	800	600	500	500	0	0	0	0	1,200	1,174	1,200	1,100
Obs.	2184	1948	1504	1333	2184	1948	1504	1333	2184	1948	1504	1333
						Saving rates						
Mean	10.0%	8.6%	13.4%	10.5%	-1.4%	-2.4%	-1.0%	-0.3%	11.4%	11.0%	14.4%	10.9%
Median	3.5%	3.2%	3.1%	2.7%	0%	0%	0%	0%	5.9%	5.6%	5.9%	5.7%
Obs.	2184	1931	1504	1333	2184	1931	1504	1333	2184	1931	1504	1333

5.2 How much do the Germans save?

For all the saving figures in Table 12, the median values are far below the average values, suggesting a skewed distribution, with a large share of households having small or no savings and a small share of households saving a lot. Figure 3 plots the distribution of net saving rates for all the three samples.

Figure 3: Distribution of net saving rates



The basic structure of the saving rate distribution does not change much between the samples:[29] the majority of the households

[29] A Kolmogorov-Smirnov test of homogeneity of the two distributions gives no evidence of statistically significant differences at common significance levels.

report saving rates in the range from 0 to 10%, including households with zero savings. Only very few households have saving rates below zero, although from 2003 to 2007 the percentage markedly increased. While in 2003 only 1.3% of the households reported to have liquidated more than they saved, in the 2007 sample this share is 4.5%.

Although most households save only a small fraction of their income, close to 8 % in all the samples stated saving rates of 30% or above. About 3% of the households even claim to have saved more than half of their income. Saving rates close or above 100% may look strange but they are not implausible. These outliers are mainly due to households that received extraordinary income (such as inheritances or gifts) which does not enter into net monthly income and was saved for a great part. The basic structure of the distribution, however, remains practically unaffected by such extraordinarily high saving rates.

By now we learned that many households have saved very little while few households have saved a lot. It is now interesting to analyze how saving rates change with income. Do savings represent a constant fraction of the household income or do richer families save bigger portions of their earnings? Table 13 summarizes the net saving rates dependent on income quintiles.

In order to take into account the fact that the needs of a household grow with each additional member but not in a proportional way (due to economies of scale in consumption), the household's net monthly income has been divided by the square root of household

size.[30] The results highlight that households save a higher fraction as their income increase: both mean and median increase moving from the first to the fifth quintile, while in the lowest income quintile the majority of households does not save at all, resulting in a median saving rate of zero.

Table 13: Saving rates and Income

			Per capita Adjusted Net Monthly Income				
		Total	**First Quintile**	**Second Quintile**	**Third Quintile**	**Fourth Quintile**	**Fifth Quintile**
Mean	**2003**	11.5%	7.5%	9.2%	11.0%	15.2%	14.4%
	2005	10.7%	7.0%	8.7%	10.9%	12.6%	14.3%
	2006	14.1%	8.5%	11.2%	13.5%	19.7%	17.9%
	2007	11.6%	6.7%	8.9%	11.9%	14.5%	16.1%
Median	**2003**	5.9%	0%	4.2%	6.3%	10.4%	10.1%
	2005	5.6%	0%	2.5%	6.7%	8.5%	9.3%
	2006	6.0%	0%	2.8%	7.7%	10.0%	12.5%
	2007	5.7%	0%	3.0%	6.9%	10.4%	12.8%

Note: To mitigate the effect of outliers, we report 1%-trimmed means.

5.2.3 Wealth

Household savings' flows accumulate to the households' wealth, usually held in various assets. To help the respondents recalling

[30] This equivalence scale has been used in the most recent OECD publications. See OECD (2005) "What are equivalence of scale?", downloadable at www.oecd.org

their different possessions, several questions on the amounts invested in specific groups of assets are asked in the SAVE questionnaire.

To start with, two broad categories of wealth – *financial* and *real* wealth, are defined. Under the first headline respondents report their deposits in savings accounts, money held in building savings contracts, the present value of whole life insurances, holdings of fixed income securities, equities and the amount of money invested in real estates founds. Since 2005, an additional category including innovative financial products such as convertibles, discount certificates, hedge funds or derivatives is included. Another specific headline concerns all the private pension assets such as company pension plans, investments eligible for government subsidies (such as the Riester-Rente) and other private retirement assets, not financed by the state; these assets are aggregated, in this work, together with the other financial assets. Under the heading *real wealth* respondents answer questions on the value of owner-occupied real estate as well as other real estate wealth, business assets and other kind of possessions such as jewelry or antiquities. Adding together the values reported under these voices and subtracting the households outstanding debt (i.e., debt in the form of loans from building savings contracts, mortgages, consumption and family loans or other types of loans), total *net* worth is derived.

Table 14 displays mean and median wealth figures: as usual, the values refer to the end of the year preceding the interview (i.e. end of 2002 for the 2003 sample, end of 2004 for the 2005 sample and end of 2005 for the 2006 sample).

Table 14: Total Net Worth and Types of Wealth

		Wealth (EUR)				
	Total Net Worth	**Outstanding Debt**	**Financial Wealth**	**Real Wealth**	Owner-occupied Real Estate	Business Asset
			Mean			
2003	155,637	17,639	27,818	145,458	106,038	11,195
2005	142,570	28,886	28,226	143,229	106,073	11,063
2006	126,378	28,379	26,160	128,598	96,749	5,060
2007	127,692	27,988	30,857	124,823	90,755	9,896
			Median			
2003	28,262	0	9,000	0	0	0
2005	35,004	0	7,000	13,000	0	0
2006	35,121	0	7,188	20,000	0	0
2007	40,064	0	10,000	20,000	0	0

From 2002 to 2005 we observe both an increase in the outstanding debt and a decrease in the households' financial and real assets. These two forces lead to a decrease in the reported total net worth from a mean value 155,637 euros at the end of 2002, to 126,130 euros at the end of 2005. Despite a slight decline in the outstanding debt and a more substantial increase in the value of the households' financial assets observable in 2006, the reported total net worth in the sample 2007 is still sensibly smaller than in the sample 2003.. As real estate make up for the most part of households' wealth, much of the difference between 2002 and 2006 can be explained by the declining value of real estate, whose value fell from an average of more than 105,000 euros in

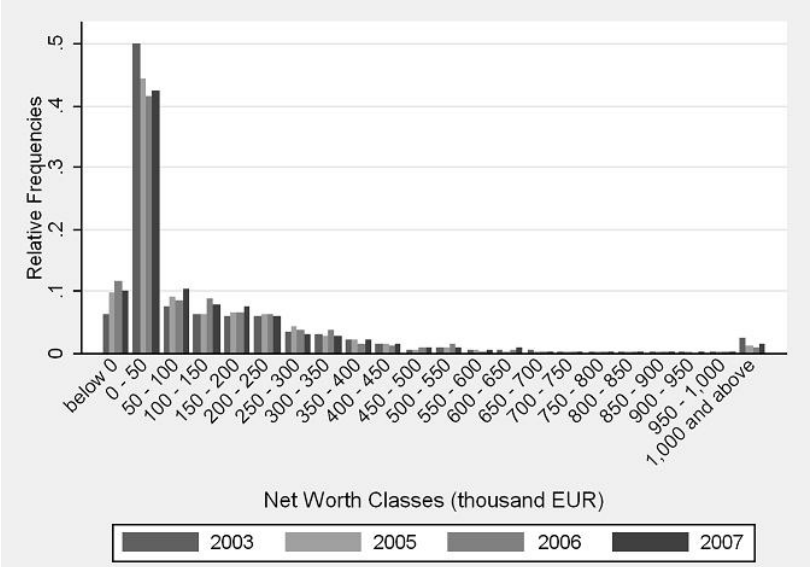
2003 and 2005 samples, down to € 91,000 in the 2006 and 2007 sample respectively.

The SAVE figures appear to be well in line with the only other data source that measures wealth in such detail, the German Income and Expenditure Survey (EVS). Since the EVS is collected only every five years, we have only one cross-section, 2003, to compare with SAVE. In this year, the average net worth in the EVS sample amounted to 126,443 euros, financial wealth accounted for 27,818 euros while the average value of real estates was 110,523 euros. The remaining discrepancies between SAVE and EVS stem, most probably, from the different sample composition. As noted in Laue (1995) and Börsch-Supan et. al. (1999, 2003), the EVS sample does not appear to be representative of the upper- and bottom-income segment of the population, assigning high weights to the middle-income brackets. It is not surprising, therefore, that in EVS the average net worth is lower than in SAVE, while both financial and real wealth are on average higher in EVS than in SAVE.

Median values for all wealth categories lie far below their means, highlighting the well-known skewed distribution of wealth. Although the majority of the households do not have any outstanding debt, more than 50% of them in all the samples do not own real estates either. Figure 2 plots the distribution of total net worth, further highlighting the skewness of the wealth distribution: the greatest fraction of households lies in the wealth category from 0 to 50,000 euros in all the samples, while only few households own very large amounts of wealth.

While the skewed shape of the distribution is the same in all the samples, some differences are worth mentioning. Table 14 already suggests a change in the distribution, as the median net worth constantly increases from 2002 to 2005 while the mean value decreases. Figure 4 shows in further detail that the percentage of households in the 0 to 50,000 Euro range decreased constantly from 2003 to 2006, while, in the same period, the households in the category "below zero" and in the categories between €50,000 and €200,000 increased.

Figure 4: Distribution of total net worth

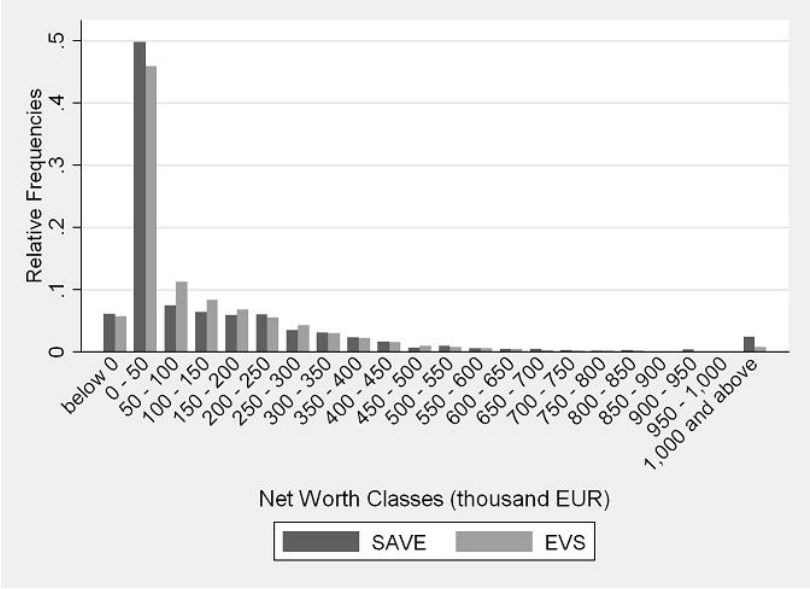


The gap between households with the highest net worth and those with the lowest narrowed between 2002 and 2005: in this time span, the median net worth of households in the top quintile of the wealth distribution decreased by 9%, while the net worth of their

counterparts in the bottom quintile remained unchanged. This reduction is mainly due to a decrease in the value of housing: the median value of the principal residence for households in the top quintile decreased by 40,000 euros (that is, by almost 14%), while this value remained unchanged in the bottom quintile in which only 8% of the families own a home.

Figure 5 compares the net worth distribution in SAVE and in the EVS: in the latter sample more households appear to be in the wealth categories between 50,000 and 200,000 euros and less in higher or lower categories, confirming the fact, already mentioned above, that the EVS over represents middle-income households.

Figure 5: Net Worth Distribution in 2003: SAVE and EVS



Source: Own calculations based on EVS 2003 and SAVE 2003

The mean value of outstanding debts increased from €17,639 at the end of 2002 to €27,808 at the end of 2005. Similarly, the percentage of households reporting having debts declined from about 30% in 2003 to 39.5% in 2006.

SAVE respondents report details on the different kind of loan they have, allowing us to analyze the structure of their debts. Although mortgages represent the single most important debt in all subsamples, accounting for more than two thirds of the overall value of debts (table 15, third row), their percentage on total debts decreased from 75% in 2004 to 65% in 2005. A similar trend is observable also for building

society loans which accounted for about 18% of overall debt in the sample 2003 but only for 15% of it in the 2006 and 2007 samples. The decreasing value of real estates highlighted before, may partially explain the observed trends.

Table 15: Debt distribution. All family units

2003		2005		2006		2007	
€ million	**%**	**€ million**	**%**	**€ million**	**%**	**€ million**	**%**
			Total debts				
38.5	100	56.3	100	42.7	100	37.3	100
			Building society loan				
6.9	17.9	9.2	16.3	6.0	14.1	5.8	15.5
			Mortgages				
27.6	71.7	42.0	74.6	27.8	65.1	24.6	65.9
			Consumer credit loans				
2.1	5.4	2.6	4.6	2.3	5.4	2.6	7.0
			Family loans				
0.5	1.3	0.6	1.1	2.4	5.6	1.0	3.2
			Other loans				
1.4	3.6	1.8	3.2	4.1	9.6	3.2	8.6

The available stock of wealth as well as the different position in the life-cycle may influence the amount of debts of a family. To take into account these elements, table 16 shows the debt-asset ratio by age classes. Overall, for every €100 of assets (financial and real assets), German families had €18.0 of debts in 2006, up from €10.2 in 2002. The ratio peaks for households aged 30 to 39 years, which in 2006 owed €34 for every €100 of assets, and decrease steadily thereafter, although the debt ratio for households aged 50 to 59 and 60 to 69 years increased, from 2002 to 2006, at a steeper pace.

Table 16: Debt per €100 assets, by age classes

	2003	2005	2006	2007
All households	10.2	16.8	18.3	18.0
Under 30	10.6	14.6	7.6	11.3
30 – 39	20.2	34.8	35.3	34.0
40 – 49	15.2	18.6	33.0	29.6
50 – 59	9.9	16.3	18.1	16.2
60 – 69	3.8	19.5	7.3	8.0
70 and older	3.8	2.4	2.7	3.8

5.2.4 Age structure

Three time-related effects influence saving rates and wealth levels. The first effect can be named *age effect* and represents the saving behavior and wealth accumulation at a certain stage in the life-cycle. The second effect can be denoted *cohort effect*, as it reflects life-long differences in saving behavior of individuals belonging to different birth cohorts. Individuals born before World War II, for example, might have a greater desire to save for precautionary reasons, having suffered through the years of poverty right after the war. The third effect, know as *time effect*, takes in the repercussion of concurrent events: households surveyed in years following an economic boom, for example, might have higher levels of wealth than households interviewed right after an economic recession.[31]

[31] Poterba(2001)

As underlined by many authors (e.g., Shorrocks, 1975; Deaton and Paxson, 2000; Börsch-Supan 2001; Börsch-Supan and Lusardi 2003; Brugiavini and Weber 2003; Ameriks and Zeldes, 2004), a given age-wealth profile over time can be consistent with very different underlying patterns of saving behavior over the life-cycle, depending on different combinations of time and cohort effects. In a single cross section none of these three effects can be separately identified, as apparent life-cycle effects are severely confounded by changes from cohort to cohort. This is an important insight worth stressing over and again because the literature shows many examples where cross-sectional data has been used – falsely – to interpret different outcomes in different age classes as age or life-cycle effects, although they might just as well be attributable to cohort differences that remain stable over the life-cycle.

The panel structure of SAVE allows to identify at least two of these three factors because it adds a longitudinal dimension to the data. Unfortunately, regardless of how panel data are examined, two of the three effects will always be confronted with the third one, since any two of these factors determine the linear part of the third. Hence, life-cycle savings and wealth accumulation patterns cannot be clearly identified without imposing some a priori assumption, adding additional outside information (such as macroeconomic data), or exploiting non-linear relationships (see Hujer, Fitzenberger, MaCurdy, and Schnabel, 2001). In the following, we follow one simple identification strategy and assume that time effects are zero, that is, they are expressed in other variables such as income or employment changes. Although there are

more sophisticated methods to separate age, cohort and time specific effects, this simple assumption allows nonetheless to observe interesting paths.[32]

The cross sectional-dimension is first explored in table 17. It analyzes the age structure of the "making ends meet" question on saving capability, showing the percentage of household in the sample in every age/savings capability category. As before, households in the first two columns are considered as capable of savings, while those in the last two as not capable.

The fraction of households capable of savings is especially high for older respondents in all the three waves of SAVE and decreases constantly with decreasing age: about 70% of the households in the eldest age class claim to always or often have enough money left at the end of the month, while only about 40% of the households in the youngest age category can be considered as capable of saving.

[32] For a discussion of identifying assumptions in panels and methods to deal with the age, cohort and time effects see e.g. Brugiavini and Weber (2003).

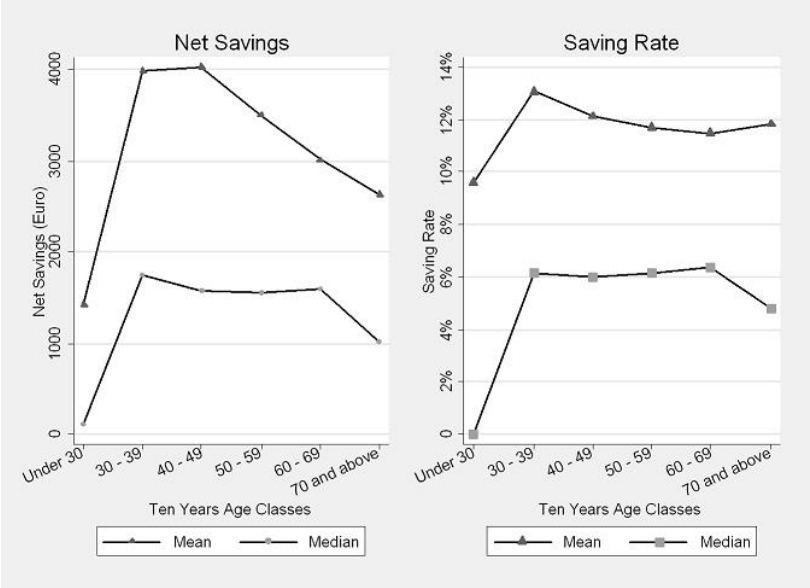
Table 17: Age Structure and Savings Capability

Age		At the end of the month there was… …always plenty of money left	…always some money left	…money left only if income was obtained	…often not enough money left	…never enough money left
Under 30	**2003**	4.7%	32.9%	25.5%	27.3%	9.7%
	2005	5.0%	36.1%	21.9%	24.3%	12.7%
	2006	6.2%	41.1%	17.1%	27.0%	8.5%
	2007	12.4%	31.5%	17.0%	24.4%	14.7%
30 – 39	**2003**	8.1%	42.7%	19.3%	25.6%	4.3%
	2005	2.6%	42.8%	20.8%	25.2%	8.5%
	2006	5.4%	37.7%	16.9%	30.6%	9.5%
	2007	8.0	28.4%	19.8%	35.4%	8.4%
40 – 49	**2003**	6.2%	47.8%	18.7%	21.5%	5.7%
	2005	6.4%	44.6%	19.1%	22.3%	7.6%
	2006	6.0%	40.5%	22.2%	22.7%	8.6%
	2007	7.2%	37.0%	19.9%	26.2%	9.7%
50 – 59	**2003**	9.3%	50.2%	16.5%	15.8%	8.2%
	2005	8.3%	44.3%	19.0%	20.2%	8.1%
	2006	4.8%	39.2%	17.3%	28.2%	10.4%
	2007	4.5%	34.9%	21.9%	31.7%	7.1%
60 – 69	**2003**	13.8%	58.5%	15.0%	8.8%	3.9%
	2005	10.2%	54.3%	14.6%	18.6%	2.3%
	2006	9.2%	53.8%	12.9%	18.9%	5.2%
	2007	9.2%	51.0%	13.5%	21.6%	4.7%
70 and older	**2003**	11.7%	59.8%	16.6%	8.2%	3.7%
	2005	10.1%	63.6%	12.3%	12.4%	1.6%
	2006	8.3%	59.3%	12.1%	16.8%	3.5%
	2007	8.3%	58.4%	12.4%	17.9%	3.0%

The quantitative information on savings at different age levels, however, does not show the same pattern. Figure 6 plots mean and

median net savings and saving rates for the three samples pulled together:[33] both net savings and saving rates appear to have an inverted U-shape ("hump shape"). While the very young and the very old save less, the highest savings can be found among the age classes in between. The hump shape is even more accentuated looking at the median values (red lines) which offer a more representative picture of the age structure of savings, as they do not respond to outliers.

Figure 6: Age structure of Savings



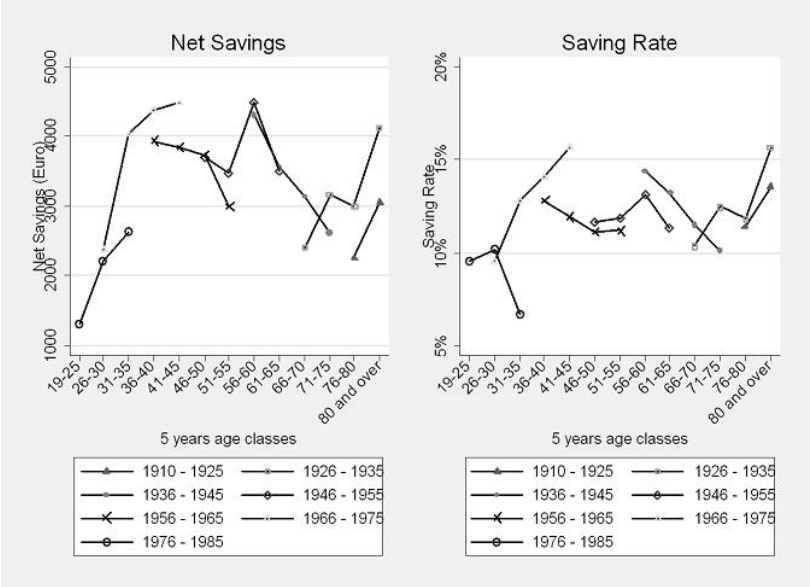
Note: Top and bottom centile of the respective distributions excluded

[33] The shape is similar for all the three subsample separately considered.

Once we eliminate the cohort-effect (as stressed above, under the identifying assumption of a time-effect equal to zero), the age profile of savings that emerges is much less well-shaped.

Although the general trend of increasing saving in earlier years and lower savings late in life can be still perceived, different behavior are evident among birth cohorts, see figure 7.

Figure 7: Mean Net Savings and Mean Saving rate by birth cohort



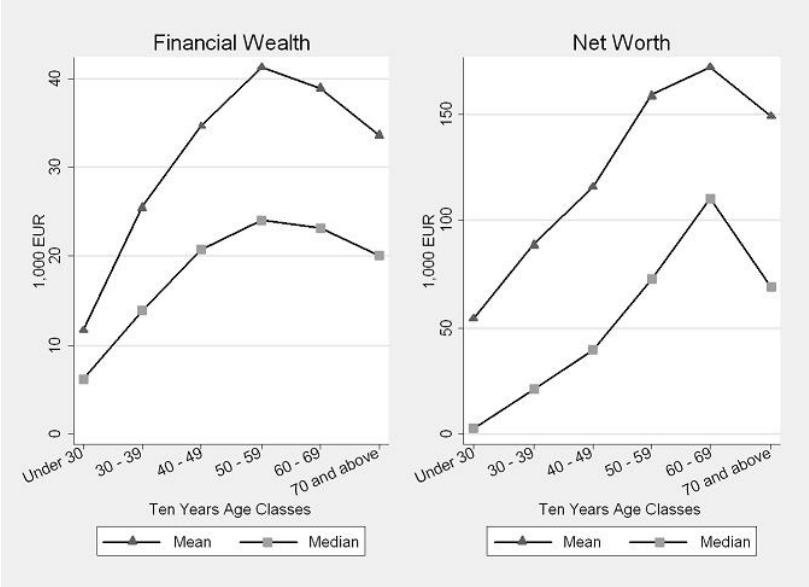
Note: Top and bottom centile of the respective distributions excluded

Individuals born during the World War II, for example, exhibit higher saving rates than individuals born in the years of the *Wirtschaftswunder*, the German "miraculously" fast economic growth following the war (birth cohort 1946 – 1955 and 1956 – 1965). Furthermore, the figure suggests that those born between 1966 and

1975 have higher saving rates than earlier cohorts: as they entered the labor market in the mid-1990s, that is exactly when the first reforms of the pension system were debated and introduced, their higher savings may be due to a increased uncertainty about their future pension level.

In contrast with the life-cycle model that predicts negative saving rates for households in their retirement years, savings among households aged 60 and above are positive, irrespectively of the birth cohort. In part this outcome can be spurious, as individuals tend not to report negative savings amounts to the general saving question upon which the figures are based. However a similar path of declining but still positive saving rate was derived also by Börsch-Supan et al. (2003b) using the EVS data from 1978 to 1998.

Figure 8: Age Structure of Financial Wealth and Total Net Worth

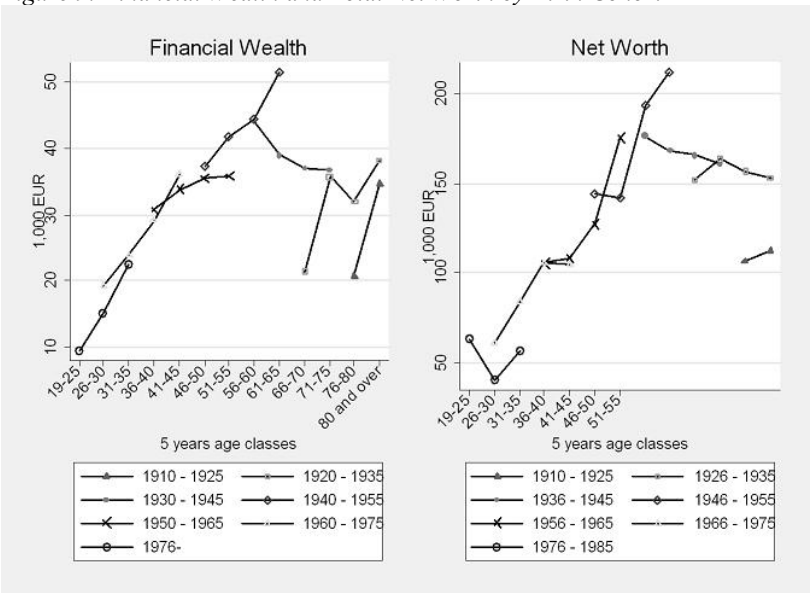


Note: Top and bottom centile of the respective distributions excluded

The cross sectional analysis of the financial wealth and of the total net worth presented in figure 8, shows the same age structure already observed for net savings and saving rates. In the middle age classes both financial wealth and net worth assume the highest values: the age structure of median total net worth is skewed further to the right, peaking in the age range 60-69. As paying back debts raises total net worth, this peak could be the result of having all debts repaid at this age, especially mortgages taken up in younger years to finance the purchase of a real estate.

As for savings, also for wealth figures the age structure highlighted with the separate analysis by birth cohort reveals more complicated patterns, see figure 9.

Figure 9: Financial Wealth and Total Net Worth by Birth Cohort



Note: Top and bottom centile of the respective distributions excluded

In general and in substantial contrast with the predictions of the life-cycle model, households do not appear to significantly reduce their wealth stock as they age. On the contrary, net worth appears to increase for households aged 66 to 80. This result is not peculiar to this data or to Germany only and a good deal of research aimed at explaining this departure from the life-cycle model. Two reasons, among others, are considered particularly important in determining high savings and wealth levels at old ages: the bequest motive and precautionary savings. Although bequest may be simply accidental (Davies 1981, Abel 1985) or due to an unexpected decreased consumption (Börsch-Supan and Stahl 1991), individuals may intentionally leave a positive amount of

wealth because of either altruistic (one generation cares for the welfare of the next one) or strategic reasons (the testator may want to influence the actions of his beneficiaries, Bernheim et al. 1985). Irrespective of the motivation, individuals who want to bequeath will have high wealth levels and possibly also positive saving rates even at old ages.

In addition to the bequest motive, the high degree of uncertainty over the life course about many important aspects (such as length of life or shocks to income or health), coupled with imperfections in insurance and financial markets, may induce to a greater accumulation of wealth than predicted with a simple version of the life-cycle model. Individuals, in fact, may want to hold a "buffer-stock" of wealth to insure against various risks they face (Carroll, 1996; Carroll, 1997, Deaton, 1991): as uncertainty about life events is not reduced as households age, also older individuals may continue to save and accumulate wealth (Palumbo, 1999; Hubbard et al., 1995).

Apart from these two reasons, other motives may drive households' saving behavior. Better understanding these motives can be useful to shape public policies. The SAVE questionnaire includes nine different saving motives that the respondents have to evaluate according to their importance. The following section reviews the main outcomes.

5.3 For what purposes do the Germans save?

There are many reasons why households save: they may bequeath a fortune, build up reserves against unforeseen contingencies, accumulate deposits to buy a home or durable good (such as cars or

furniture), or to finance their childrens' or grandchildrens' future education. The relevance of these saving motives not only differs from household to household, but also for the same individual over the life cycle. To better understand these motives and how relevant they are for different groups or at different ages is becoming more important because an increasing number of studies in the past years highlight the pitfalls of models that are based on the restrictive assumptions of the simple life-cycle framework of the textbooks. The study of Börsch-Supan et al. (2003b) shows, for example, that different saving motives have shaped the consumption patterns of different cohorts. They have to be taken into account in explaining the puzzling fact that in Germany high levels of real and financial wealth at old ages coexist with a generous pension and health system.

In the SAVE questionnaire, the following nine saving motives have to be evaluated by the respondents: saving to buy a house, precautionary savings for unexpected events, saving to pay back debts, saving for retirement, saving for travel, saving in order to make major purchases (such as an auto, new furniture and so on), saving to finance the education and support of children or grandchildren, saving for bequest reasons and saving to take advantage of government subsidies (such as subsidies for building savings contracts). Respondents rate these motives on a scale from 0 to 10 with respect to their importance, where 0 indicates that the motive is not important and 10 that it is very important. Figure 10 shows the relative frequencies of values assigned by the households to each of the nine savings motives in four waves of SAVE.

Figure 10: Reasons for Saving

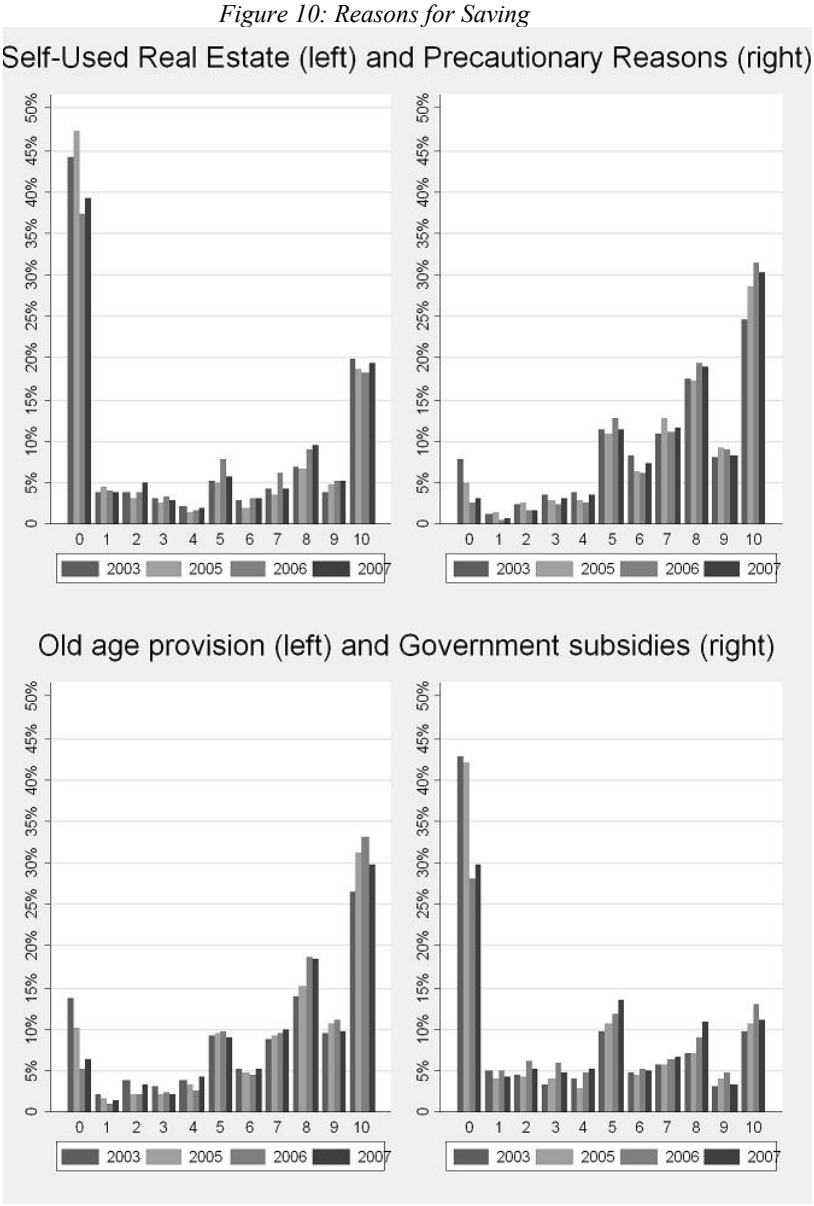


Figure 10 (continued): Reasons for Savings

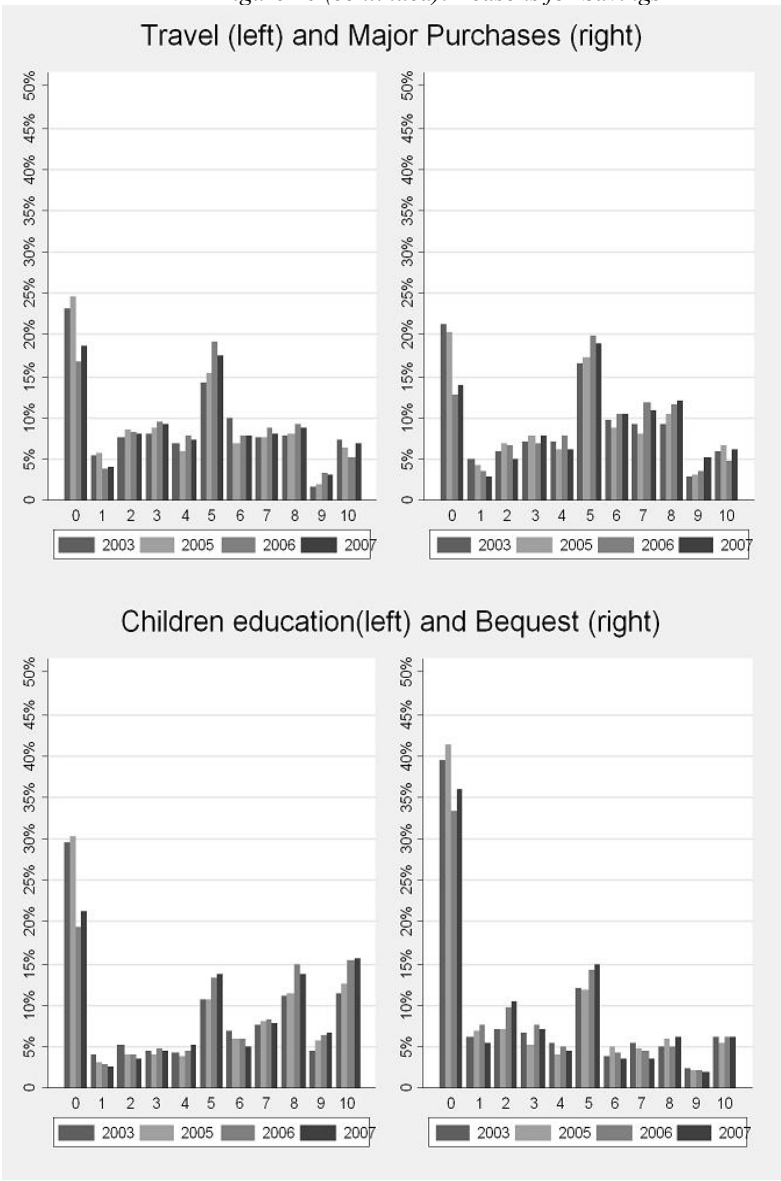


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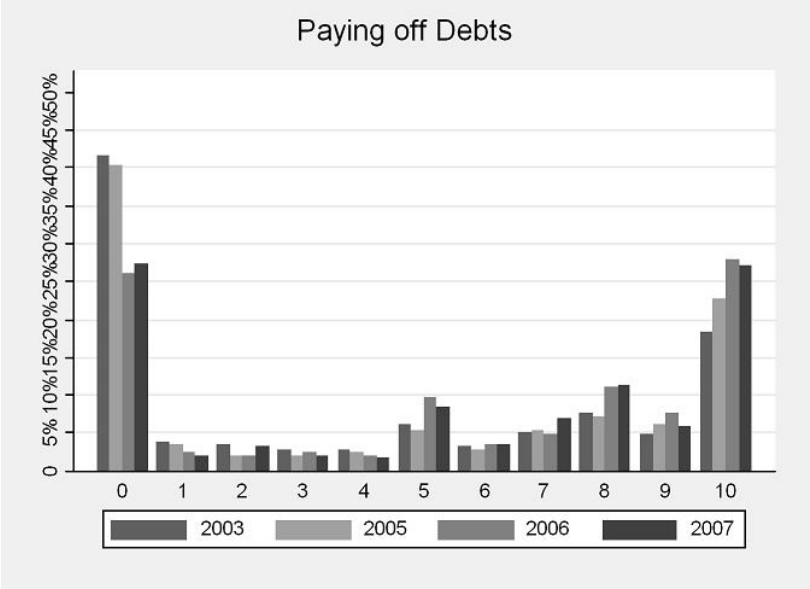
Figure 10 (continued): Reasons for Savings



Two features catch the eye: first, some saving motives exhibit a single peaked distribution, while others show a bimodal distribution. Second, the concentration of households' responses around so called *focal points* (such as 0, 5 or 10) is apparent for nearly all saving motives.

The distribution of answers given to evaluate the relevance of saving for buying owner-occupied real estate and for paying off debts resembles a bimodal structure, with peaks at 0 and 10: households value these motives either as not important at all, or as very important. This is understandable as these motives clearly depend on the current home

and debt situation. As already noted by Börsch-Supan and Essig (2005a), households owning or planning to buy a home consider saving for owner-occupied real estate to be important. The same is true for debts: whether or not a household views saving for debt-repayment as an important savings motive, depends on whether the household is indebted or not.

German households consider saving for precautionary reasons and for old-age provision among the most important reasons for saving. Their importance appears to increase from year to year: 61.4% of the households surveyed in 2003 rated precautionary savings between 7 and 10, compared to 68% in the 2005 sample and around 70% in both 2006 and 2007 samples. The percentage of respondents that rated saving for old-age provision with an importance level between 7 and 10 increased from 58.8% in 2003, to 66.1% in 2005 to 72.1% in 2006. At the same time, the share of households claiming retirement savings as unimportant (a value smaller or equal to 3) decreased from 22.8% in 2003, to 16.4% in 2005 down to 10.7% in 2006. These changes might be due in part to individuals' increasing awareness of the need for private retirement savings in Germany as implication of the ongoing reform of the public pay-as-you-go pension system.

Saving for travel and saving for major purchases are not considered particularly important. Households concentrate their answers around the focal points 0 and 5, although in the 2006 sample is observable an increase in the percentage of households that assign a higher value to these two saving reasons.

An astonishing high percentage of households consider saving to support the education of the children and/or grandchildren not important at all: around 30% of the respondent in 2003 and 2005 assigned a value equal to zero to this saving motive, although the percentage decreased to around 20% in 2006 and in 2007. The perception of the relevance of education and support for the children, however, can be different for household with and without children. Indeed, if the analysis is restricted only to households with children still living at home, the percentage of households that assigned a zero value drops down to 11% in 2003, 9% in 2005, 5% in 2006 and 6% in 2007. Nonetheless, even among these households, the percentage of respondents that assign a low importance to this saving reason is still high: 22% of the households in 2003 and 12% of the households in 2006 chose a value equal or lower than 3. The reluctance to save for education of children might be due to the fact that, so far, education in Germany is mostly publicly financed, making additional private savings less important.

Saving to leave a bequest appears to be the most irrelevant reason for saving. In all three waves of data around 40% of the respondents assign a value zero to this saving motive, and around 60% a value equal or smaller than 3. Even when the analysis is restricted to households with children – which may be more interested in leaving a bequest -- percentages are similar. As Reil-Held (2007) points out, the fact that this saving reason is not a primary one reduces the probability that an estate tax will induce negative effects on private savings.

Finally, making use of government subsidies as savings reason is viewed as not being important by the majority of the households in 2003 and 2005: more than 40% of the respondents rate this saving reason completely unimportant, and more than 50% assign a very low value (between 0 and 3). The percentages are clearly smaller in the 2006 and 2007 samples, where less than 30% of the respondents assigned a value zero to this saving reason, and about 45% of them chose a value between 0 and 3. Comparing these answers with those given to the question on the relevance of saving for retirement (where more than 60% of the respondent chose a value between 7 and 10), makes clear that the primary reason for saving (the old-age provision) is obviously more important than the secondary reason (the governmental subsidy). As pointed out in Börsch-Supan et al. 2006, if the subsidy were indeed to represent only a secondary reason for saving, the effectiveness of incentive programs initiated by the government (such as the "Riester - Rente") may be questioned. Such a conclusion, however, can only be drawn from a setting in which some persons receive a subsidy and others do not, and thus remains a topic for further research.

So far we got to know the households' "declaration of intents" concerning their savings. Is their actual behavior then coherent with their intents? A convenient way offered by the SAVE survey to check whether households act and save according to their statements, is to look at the respondents who received extra income (such as an inheritance or a gift) in the previous year and observe how they used it. Following economic theory, the propensity to save such one-off receipt

should be particularly high. Table 18 compares the households' indications on the importance of savings motives to the use of extraordinary income. The comparison is restricted only to households who received extraordinary income in the year preceding the interview (291 households in the 2003 sample, 351 in the 2005, 506 in the 2006 and 393 in the 2007 sample). The table is divided into purposes the extraordinary income can be used for. The columns *yes* represent the percentage of households using extraordinary income for purpose *x*, while the columns *no* contain the households not using extraordinary income for that purpose. In each column, households are then grouped according to their evaluation of the savings motives corresponding to the purpose.

Table 18: Consistency of Word and Actual Behavior

Use of extraordinary income for:	***Purchase of real estate***		***Paying off debts***		***Travel***	
	Yes	No	Yes	No	Yes	No
Savings motive:	**Purchase of owner-occupied real estate**		**Paying off debt**		**Travel**	
	Important (7-10)					
2003	52.0%	45.1%	72.6%	40.8%	45.7%	25.9%
2005	63.8%	47.8%	81.3%	50.0%	48.6%	21.1%
2006	73.7%	44.1%	74.1%	50.0%	38.7%	28.0%
2007	90.2%	47.6%	72.0%	54.2%	49.6%	26.6%
	Indifferent (4-6)					
2003	7.3%	9.2%	7.8%	12.6%	33.5%	36.3%
2005	11.2%	7.9%	14.1%	12.2%	37.9%	33.0%
2006	13.3%	11.0%	10.1%	15.7%	45.4%	33.8%
2007	4.9%	12.2%	13.4%	12.8%	38.6%	33.0%
	Unimportant (0-3)					
2003	40.7%	45.7%	19.6%	46.6%	20.8%	37.7%
2005	25.0%	44.3%	4.6%	37.7%	13.5%	45.9%
2006	13.0%	44.9%	15.8%	35.6%	15.9%	38.2%
2007	4.9%	40.2%	14.6%	33.0%	11.8%	40.4%
	Number of observations					
2003	13	278	50	241	43	248
2005	8	343	64	287	71	280
2006	9	503	94	421	101	405
2007	12	381	80	313	90	303

(continues…)

Table 18: Consistency of Word and Actual Behavior (continued)

Use of extraordinary income for:	***Purchase of Durable Goods***		***Savings investments with a clearly defined purpose (whole life insurance, private pension...)***			
	Yes	No	Yes	No	Yes	No
Savings motive:	**Major Purchases**		**Old-age Provision**		**Precautionary**	
			Important (7-10)			
2003	45.8%	29.8%	73.2%	64.8%	82.5%	64.0%
2005	37.6%	30.2%	83.1%	72.1%	72.4%	71.0%
2006	39.6%	30.8%	86.8%	74.3%	80.7%	75.0%
2007	48.9%	35.3%	86.3%	73.7%	85.8%	75.0%
			Indifferent (4-6)			
2003	44.1%	35.2%	18.1%	19.6%	11.8%	24.9%
2005	39.5%	38.6%	9.2%	21.0%	25.7%	22.9%
2006	39.3%	44.5%	8.4%	13.7%	13.9%	18.2%
2007	37.0%	40.9%	9.5%	16.1%	8.3%	19.5%
			Unimportant (0-3)			
2003	10.1%	35.0%	8.6%	15.6%	5.7%	11.0%
2005	22.9%	31.2%	7.7%	6.9%	2.0%	6.1%
2006	24.7%	21.0%	4.8%	11.9%	5.4%	6.8%
2007	23.8%	14.1%	4.2%	10.2%	5.9%	5.5%
			Number of Observations			
2003	47	244	33	258	33	258
2005	87	264	56	295	56	295
2006	122	384	72	434	72	434
2007	109	284	60	333	60	333

Word and actual behavior seem to be fairly consistent in all SAVE waves. Among households using their extraordinary income for

one of the presented purposes ("purchase of a real-estate", "paying off debts", "travel", "purchase of durable goods" and "purchase of saving investments with a clearly defined purpose") a higher fraction consider *important* the corresponding savings reason than among households not using their extraordinary income for that purpose. For example, of all the households that in 2003 used extraordinary income to pay back debts, 73% considered "paying off debts" an important saving reasons, while only 41% of those who did not use their extra income for the repayment of debts rated this saving reason as important. The reverse is also true: the fraction of households considering unimportant a certain saving reason is higher among households that did not use their income for the corresponding purpose.

Households have different needs and different future perspectives according to their characteristics, age and income being among the most influential. It is therefore reasonable to expect that also their saving reasons differ according to these aspects. To investigate this point, table 19 summarizes how the importance of each of the nine saving reasons varies with age and income. The percentages indicate the share of households rating a specific savings motive between 7 and 10, as a function of three age and income classes.

The percentage of households attributing importance to a certain savings reason increases with income for all stated savings motives except the bequest motive. This finding is a bit surprising for savings for major purchases and savings for travel purposes, as one would expect these kinds of expenses to be financed by high income households quite easily without accumulate savings. It is worth

highlighting the sharp increase from 2003 to 2006 in the percentage of households attaching great relevance to the old-age provision and to the government subsidies purposes in the lowest income class. While in 2003 the share of households considering important to save for retirement in the income class below 1,300 euros was 48.2%, in 2006 it was 65.4%, increasing by 36%. In contrast, in the highest income class, this percentage increased from 2003 to 2006 only by 8%. Similarly, the percentage of household in the lowest income class that considered important saving to profit from governmental subsidies increased by 40.5%, moving from 18% in 2003 to 25.3% in 2007.

The age structure appears to be the same for all waves. As expected, the importance to save for buying a new home decreases with age, while precautionary savings seem equally important at all age levels. Paying-off debts, old-age provision and financing the education of the children are considered important savings motives mostly among middle-aged households. In the youngest group, however, the percentage of respondents considering the old-age provision important, increased comparatively more than in the other age classes. Saving for travel and major purchases is less important as age increases. Not surprisingly, the importance of the bequest motive is higher for the older households, while they rate the relevance of saving to benefit from governmental subsidies considerably less than younger households. The latter result is reasonable given that these subsidies favor most long term savings plans (such as building savings contracts or private retirement savings schemes).

Table 19: Savings Motives by Age and Income Classes

	Age			Net Monthly Income (EUR)		
	Under 35	**35 – 54**	**Over 55**	**Below €1300**	**€1300 – €2600**	**Above €2600**
			Self – used real estate			
2003	47.0%	39.5%	25.5%	26.2%	33.3%	48.5%
2005	47.4%	41.8%	20.8%	22.5%	33.5%	48.3%
2006	55.5%	39.7%	29.3%	25.9%	40.3%	51.5%
2007	54.8%	40.1%	29.0%	27.7%	37.7%	52.8%
			Precautionary			
2003	59.7%	61.9%	61.7%	54.4%	62.8%	67.8%
2005	63.7%	67.6%	70.1%	61.1%	70.2%	73.3%
2006	69.9%	71.7%	70.7%	65.6%	73.2%	73.8%
2007	67.5%	70.6%	68.4%	62.6%	69.5%	76.4%
			Old-age Provision			
2003	58.1%	66.7%	52.3%	48.2%	58.5%	72.7%
2005	65.7%	74.3%	59.2%	57.1%	67.2%	76.1%
2006	71.8%	76.8%	68.1%	65.4%	73.6%	78.5%
2007	70.2%	75.5%	59.8%	57.3%	68.8%	79.9%
			Government subsidies			
2003	36.6%	31.6%	15.9%	18.0%	27.5%	32.5%
2005	35.1%	34.9%	17.9%	17.9%	30.8%	34.4%
2006	35.6%	38.4%	27.0%	25.9%	35.7%	38.1%
2007	37.8%	32.3%	29.1%	25.3%	37.2%	32.3%
			Children education			
2003	34.5%	43.3%	27.2%	26.3%	33.5%	46.9%
2005	40.9%	47.9%	28.1%	29.4%	37.9%	49.0%
2006	50.0%	55.4%	32.2%	34.9%	44.8%	57.3%
2007	49.9%	50.1%	34.8%	35.3%	42.8%	55.8%
			Bequest			
2003	15.4%	15.5%	23.0%	18.3%	19.3%	19.7%
2005	16.3%	14.6%	22.8%	14.8%	21.9%	17.5%
2006	21.2%	15.1%	19.3%	15.5%	20.0%	17.9%
2007	21.7%	13.5%	20.3%	15.7%	19.4%	18.1%

(continues…)

	Age			Net Monthly Income (EUR)		
	Under 35	**35 – 54**	**Over 55**	**Below €1300**	**€1300 – €2600**	**Above €2600**
			Travel			
2005	31.0%	24.0%	21.0%	19.7%	24.3%	29.1%
2006	34.4%	24.0%	25.9%	22.6%	26.7%	32.5%
2007	30.5%	26.6%	25.7%	23.1%	27.9%	30.4%
			Major Purchases			
2003	38.5%	28.7%	21.4%	20.8%	28.5%	33.8%
2005	42.0%	30.0%	20.9%	25.4%	26.6%	34.4%
2006	40.9%	32.6%	26.8%	29.7%	29.6%	38.2%
2007	42.1%	35.6%	29.9%	32.5%	32.8%	39.8%
			Paying-off debts			
2003	40.9%	44.0%	27.3%	31.8%	35.1%	43.7%
2005	48.0%	54.1%	27.8%	34.1%	40.3%	53.1%
2006	56.8%	58.8%	41.6%	49.6%	49.9%	55.8%
2007	56.3%	59.8%	41.0%	46.7%	48.5%	61.7%

5.4 How Do the Germans Save?

The final section of this chapter focuses on *how* German households save. Since households do not really solve a maximization problem to derive their optimal saving path, is it interesting to discover which rules, if any, they apply in making their saving decisions. Understanding these rules is important from the scientific point of view: it helps us to understand human decision making, in particular the circumstances under which well-defined decision heuristics apply, and under which other circumstances individuals make spontaneous or emotional decisions. It is also important for public policy: knowing decision rules makes it easier to design optimal subsidy schemes and financial education. The SAVE questionnaire include several direct and indirect questions to investigate these aspects.

5.4.1 Direct questions on saving behavior

The SAVE questionnaire includes several direct questions about household saving behavior. Respondents are initially asked to chose, among five possible sentences, which one better describes their personal saving behavior. Table 20 reports the overall relative frequency of households choosing a certain answer, as well as the relative shares, depending on three age and income classes.

The basic distribution of answer is similar in all SAVE waves. Altogether, about three quarters of the surveyed households claim to save, either regularly or irregularly. The majority of households (54.7% in 2003, 52.0% in 2005, 54.5% in 2006 and 52.6% in 2007) save regularly, and the largest share of them even manage to save a fixed amount. This percentage increased steadily in time, moving from 34.4% in 2003 to 38.5% in 2007. This is a striking and important finding.

For slightly more than 20% of the households, the decision to save or not depends on consumption and income: they only save if there is money left. Roughly the same share of households does not have the capability to save, while only a minimal percentage (slightly more than 2% in all waves) does not see the necessity to save and prefers rather to enjoy life.

Table 20: Self-Assessment of Saving behavior

	Total	*Age*			*Income (EUR)*		
		Under 35	35 – 54	> 55	Below 1,300	1,300 – 2,600	2,600 and above
				I save a fixed amount regularly			
2003	34.3%	32.9%	45.2%	25.6%	18.1%	35.9%	52.0%
2005	35.6%	32.8%	44.0%	29.5%	20.1%	35.7%	55.6%
2006	39.8%	38.6%	43.8%	36.5%	21.6%	42.2%	58.5%
2007	38.5%	37.3%	41.1%	36.6%	23.4%	42.4%	50.6%
				I save regularly, the amount varies			
2003	20.3%	13.8%	16.0%	26.9%	16.5%	20.8%	24.3%
2005	16.4%	12.2%	13.6%	20.7%	13.2%	17.8%	18.3%
2006	14.7%	12.8%	13.0%	17.3%	12.0%	16.1%	16.0%
2007	14.1%	12.1%	10.6%	18.4%	9.2%	14.9%	18.8%
				I only save if there is money left			
2003	20.9%	18.4%	16.4%	25.9%	23.1%	23.6%	13.6%
2005	22.3%	22.9%	17.8%	25.9%	23.7%	24.4%	16.7%
2006	22.6%	21.4%	18.7%	26.8%	28.0%	23.3%	14.6%
2007	23.5%	23.8%	23.3%	23.5%	26.7%	24.1%	18.5%
				I do not have the financial capability to save			
2003	22.0%	30.7%	21.6%	18.4%	38.9%	17.3%	8.6%
2005	22.7%	28.1%	23.6%	19.7%	39.8%	18.3%	7.8%
2006	20.7%	24.1%	23.0%	16.8%	35.3%	17.2%	8.0%
2007	21.2%	23.4%	23.9%	17.5%	36.6%	17.2%	8.6%
				I do not save, I rather enjoy life			
2003	2.5%	4.2%	0.7%	3.2%	3.4%	2.4%	1.5%
2005	3.0%	4.1%	1.0%	4.2%	3.1%	3.7%	1.5%
2006	2.3%	3.1%	1.5%	2.6%	3.1%	1.2%	3.0%
2007	2.8%	3.4%	1.1%	4.1%	4.0%	1.4%	3.4%

With respect to age, an astonishing high proportion of young households (more than 45% in all the four waves) saves regularly. In particular, the percentage of households under 35 years that claim to save a fixed amount regularly increased by 13.4% from 2003 to 2007. The share of households financially constrained to save decreases in age, likely as outcome of lower incomes earned by young households in comparison with the older ones.

As expected, income plays an important role in shaping savings decisions. In the highest income class, about three quarters of the households put aside money regularly, while only a bit more than 30% do so in the lowest income class. It is interesting to note, however, that while in the lowest income class the percentage of households who save a fixed amount regularly increased from 2003 to 2007 (+22.6%), in the highest income class this percentage, after a less steep increase between 2003 and 2006 (+11%), slid back in 2007 slightly below its 2003 level. Finally, the percentage of households not capable of saving decreases with increasing income.

The examination of the consistency between self-assessed saving behavior and self-reported capability to save may help to understand how the households really perceive savings and expenditures. Table 21 compares the answers to the question about making ends meet (see section 4.2.1, table 5) to the answers to the question about savings attitudes, presenting the percentages of households in each answer category as a function of their capability to save.

Table 21: Self-Assessment of Saving Behavior and Savings Capability

		At the end of the month there was…				
		…always plenty of money left	**…often some money left**	**…money left only if income was obtained**	**…often not enough money left**	**…never enough money left**
		I save a fixed amount regularly				
2003	34.3%	55.8%	38.8%	28.4%	22.4%	15.7%
2005	35.6%	55.3%	40.9%	35.2%	23.5%	11.8%
2006	39.8%	60.8%	46.0%	38.7%	29.2%	19.7%
2007	38.5%	50.0%	45.2%	41.4%	28.3%	19.5%
		I save regularly, the amount varies				
2003	20.3%	27.9%	28.3%	14.0%	6.5%	0.8%
2005	16.4%	26.9%	23.5%	6.2%	8.6%	3.1%
2006	14.7%	25.0%	20.2%	10.5%	6.1%	9.6%
2007	14.1%	32.5%	20.8%	6.0%	5.5%	7.3%
		I only save if there is money left				
2003	20.9%	10.4%	22.4%	28.5%	17.5%	10.9%
2005	22.3%	11.4%	24.1%	29.5%	19.0%	10.9%
2006	22.6%	9.2%	25.3%	30.1%	20.8%	6.9%
2007	23.5%	10.1%	25.3%	35.0%	21.0%	9.9%
		I do not have the financial capability to save				
2003	22.0%	2.2%	8.2%	27.1%	50.8%	70.0%
2005	22.7%	3.3%	8.2%	25.4%	47.7%	69.1%
2006	20.7%	3.1%	6.3%	19.1%	41.5%	59.9%
2007	21.2%	1.3%	5.5%	16.5%	42.3%	63.3%
		I do not save, I rather enjoy life				
2003	2.5%	3.6%	2.3%	2.1%	2.7%	2.6%
2005	3.0%	3.1%	3.2%	3.7%	1.0%	5.2%
2006	2.3%	2.0%	2.3%	1.6%	2.3%	4.0%
2007	2.8%	6.1%	3.3%	1.1%	2.9%	0.0%

Overall, the answers given to both questions are quite consistent. This is particularly evident when looking at the percentage of households claiming not to have the financial capability to save: more than 60% of the households in all waves claimed to never have enough money left at the end of the month and also stated not to have the financial capability to save. Nonetheless, it is surprising that still 15.7% in 2003, 11.8% in 2005, 19.7% in 2006 and 19.5% in 2007, claim to save a fixed amount regularly although they state to have never enough money left at the end of the month. This discrepancy points out the fact that a not negligible percentage of the respondents perceive their regular saving amounts as monthly expenditures when answering the "making the end meets" question. If that is the case, saving regularly can be consistent with never having enough money left at the end of the month. This finding reiterates the importance of regular saving, in particular contracted saving plans.

Households that indicate to save either regularly or irregularly are also asked whether they save toward specific savings targets. Table 22 presents some figures for households stating to follow fixed savings targets.

Table 22: Fixed Saving Targets

	Savings Target in EUR				***Time in years***			
	2003	**2005**	**2006**	**2007**	**2003**	**2005**	**2006**	**2007**
Total								
Percentage	30.3%	28.7%	26.7%	25.7%				
Mean	32,394	22,759	40,653	39,739	5.9	5.2	4.7	4.2
Median	5,000	4,000	10,000	10,000	3	2.02	2.0	1.8
By age:								
Under 35								
Percentage	20.6%	23.7%	26.0%	32.5%				
Mean	35,397	22,016	39,295	36,965	5.3	4.5	3.7	3.6
Median	3,000	3,000	5,000	6,000	2.6	1.7	1.1	1.5
35 – 54								
Percentage	45.0%	43.0%	34.6%	38.1%				
Mean	44,857	31,229	48,436	45,606	8.6	7.4	6.6	5.9
Median	10,000	5,000	15,000	12,000	4.8	3.9	3.5	2.7
55 and above								
Percentage	34.4%	33.4%	39.4%	29.4%				
Mean	14,264	12,387	34,662	35,21	2.9	2.9	3.8	2.7
Median	3,000	3,000	10,000	8,000	1.6	1.7	2.5	1.4

(continues…)

	Savings Target in EUR				*Time in years*			
	2003	**2005**	**2006**	**2007**	**2003**	**2005**	**2006**	**2007**
By income								
Below €1,300								
Percentage	21.6%	25.7%	26.6%	23.9%				
Mean	14,635	4,441	18,113	20,515	3.7	2.5	3.0	1.9
Median	2,000	1,000	4,000	1,500	1.6	1.4	1.3	1.0
€1,300 – €2,600								
Percentage	41.8%	40.1%	44.8%	41.3%				
Mean	24,338	23,643	37,914	42,2	5.9	5.4	5.0	4.5
Median	7,000	5,000	12,000	10,000	2 9	2.7	2.0	2.0
€2,600 and above								
Percentage	36.6%	34.2%	28.5%	34.8%				
Mean	52,069	35,523	65,964	50,055	7.3	6.9	6.0	5.6
Median	10,000	10,000	15,000	20,000	3.6	3.1	3.0	2.7

In all four waves, about 30% of the households who save either regularly or irregularly, claims to have fixed targets. This percentage is clearly higher for middle-aged and mid-income households. Middle-aged households show also the highest savings targets in terms of both mean and median values. The high mean target and the above average time to reach the goal for these households could be due to the desire of saving to purchase an own home. The eldest households exhibit both the smallest savings targets and the shortest time to reach the goal.

Mean and median savings targets appear to increase with income in all waves. Richer households seem to plan their future further ahead than poorer households, as it becomes clear from the longer mean and median times expressed by these households to reach their savings goal.

A general increase in the mean saving target and a decrease in the mean expected time to reach the goal can be noted from 2003 to 2007 in almost all the age and income categories.

5.4.2 Indirect questions on saving behavior

Among the SAVE questions concerning indirectly with saving behavior, the one that deals with households' practices of keeping record of all the expenditures is particularly interesting: as keeping a book of household accounts require some discipline, analyzing this aspect may reveal something on the attitudes toward savings.

Table 23 summarizes the percentages of household who answered *yes* to the question "Do you or your partner keep record of all household expenditures?" The results are broken down by age and income categories. As the SAVE questionnaire asks about respondents' parents attitudes toward keeping record of expenditures, table 23 reports also the fraction of respondents whose parents keep or kept records of their household's expenditures.

Table 23: Keeping Record of Household Budget

"Do you or your partner keep record of all household expenditures?"

By age:	**Under 35**	**35 – 54**	**55 and above**	**Total**	**Parents**
2003	14.7%	18.8%	17.0%	17.2%	17.7%
2005	15.0%	20.0%	16.7%	17.7%	18.4%
2006	18.4%	22.4%	22.0%	21.4%	20.2%
2007	19.3%	21.3%	22.6%	21.5%	20.3%
By income:	**Below 1300**	**1300-2600**	**2600 and above**	**Total**	**Parents**
2003	14.5%	15.8%	23.0%	17.2%	17.7%
2005	13.6%	18.0%	22.3%	17.7%	18.4%
2006	18.7%	22.2%	23.6%	21.4%	20.2%
2007	18.5%	21.4%	25.1%	21.5%	20.3%

About one fifth of the respondents in all waves uses to keep track of their expenditures and roughly the same fraction reported that their parents use to do the same. The largest share of households keeping account is aged between 35 and 54 years (although the variation between age classes is rather small), and it increases with income, amounting to about 23% for the highest income class in each wave of SAVE.

Table 24, finally, sheds light on the question of whether keeping record of household expenditures is an inheritable attitude. There is weak evidence that keeping track of household budget is due to parental behavior. In all four waves, in fact, almost 90% of the respondents, whose parents did not use to keep record of their

expenditures, claim to do the same. On the other side, only half of the respondents, whose parents used to record their expenditures, assert to do as they parents did.

Table 24: Inheritance of Keeping Record

Do you or your partner keep record of all household expenditures?

2003	**Parents**	
Respondents	**Yes**	**No**
Yes	49.8%	10.2%
No	50.2%	89.8%
2005	**Parents**	
Respondents	**Yes**	**No**
Yes	44.5%	11.6%
No	55.4%	88.4%
2006	**Parents**	
Respondents	**Yes**	**No**
Yes	52.2%	14.8%
No	47.8%	85.2%
2007	**Parents**	
Respondents	**Yes**	**No**
Yes	50.0%	14.2%
No	50.0%	85.8%

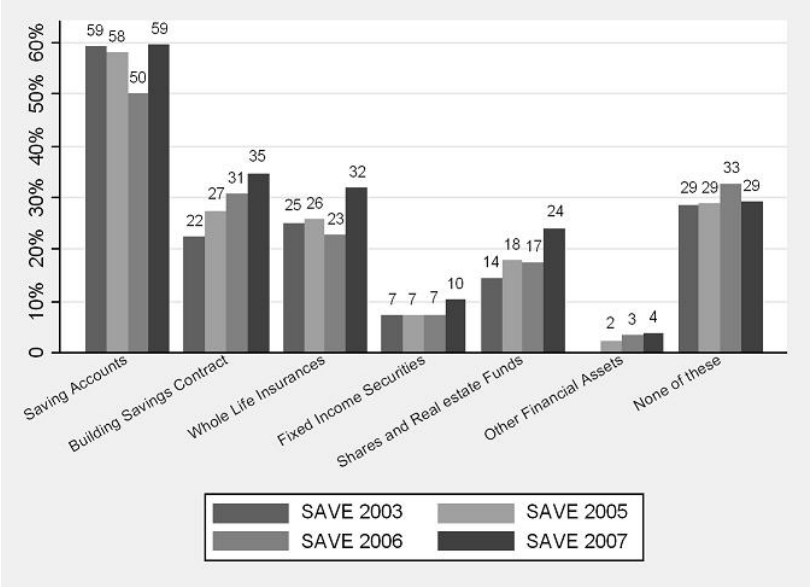
5.4.3 Which Assets Are In German Households' Portfolios?

We finish this section by offering an overview of the asset holdings among all asset classes recorded by SAVE. The questions are grouped under two main headlines (and are depicted on separate pages on the paper and pencil instrument): *financial assets* and *retirement savings assets*. Five different funds are presented under the first headline: savings accounts, building savings contracts, whole life insurances[34], fixed income securities and stocks and real estates funds. Since 2005, an additional category "other financial assets" was included. Respondents are asked to state how many contracts they have and the amount of each asset at the end of the year preceding the interview.

Figure 11 plots the relative frequency of households holding a specific type of asset. It is worth to remind that the answers for the 2003, 2005, 2006 and 2007 sample refer to asset situation in 2002, 2004, 2005 and 2006 respectively.

[34] Since 2007, the voice "whole life insurance" has been moved under the headline "*retirement savings asset*".

Figure 11: Shares of Households Holding a Specific Asset



Although in comparison with the 1980's and the 1990's the popularity of certain assets increased, German households invest their savings in a pretty conservative fashion.[35] Almost 60% of the households hold normal savings accounts and this percentage, with the only exception for the wave 2006, appears pretty stable across time. On the contrary, the share of households investing in building savings accounts increased from 22% in 2002, to 35% in 2006. About one quarter of the respondents have whole life insurances and this percentage does not change a lot in the time span analyzed.

[35] For an overview of the ownership rates of financial assets in Germany during the 1980's and the 1990's see Eyman and Börsch-Supan (2002)

Only about 7% of the households invest their savings in fixed income securities such as government or corporate bonds, although in 2007 the percentage of respondents with these assets increased by 3 percentage points. The share of households holding stocks and real estate founds increased from 14.5% in 2002, to 24% in 2006. German households are reluctant to invest in equities: despite the increase, in fact, this share is relatively small when compared with other western countries such as, for example, the U.S. where about 57% of the households own stocks either directly or through mutual funds.[36] Data from SAVE 2001 show that even in year 2000, when the stock markets were booming, just about one third of the households reported to have equities. The market downturn in 2001 induced a loss of confidence in investing in corporate stocks that may partially explain the extremely low percentage of households that reported to have stocks and real estate founds in 2002, while the recent increase registered in the 2005, 2006 and 2007 samples might be then due to the recovery of the stock market. A residual fraction of households (2.4% in the sample 2005, 3.2% in the sample 2006 and 3.6% in the sample 2007) holds more innovative financial assets (such as convertibles, discount certificates, hedge funds or derivatives) summarized under the voice "other financial assets".

Figure 12 compares the structure of the financial assets in SAVE, in the EVS and in the GSOEP surveys for the year 2003. The conservative structure of the German portfolios is even more evident in

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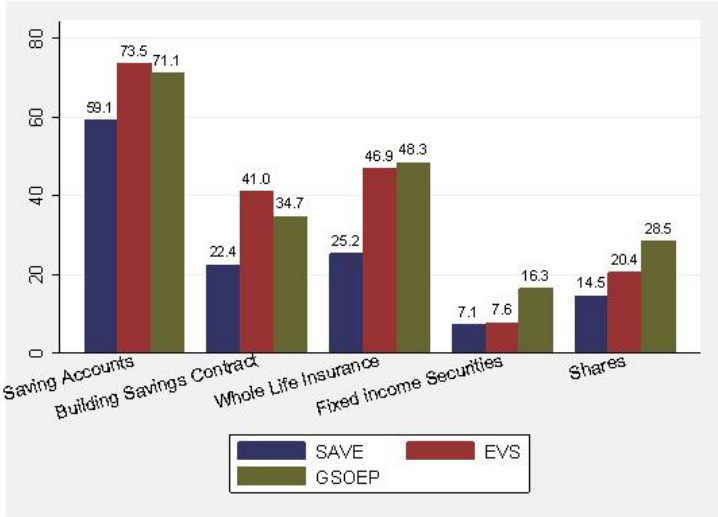
[36] Investment Company Institute and the Securities Industry Association (2005)

the other two surveys: more than 79% of the respondents report to have a saving account and around 40% have a building savings contract. In general, each of the five assets considered is owned in SAVE by a lower percentage of households than in the EVS or in the GSOEP samples.

Figure 12: Financial Assets Ownership in 2003: SAVE vs. EVS and GSOEP

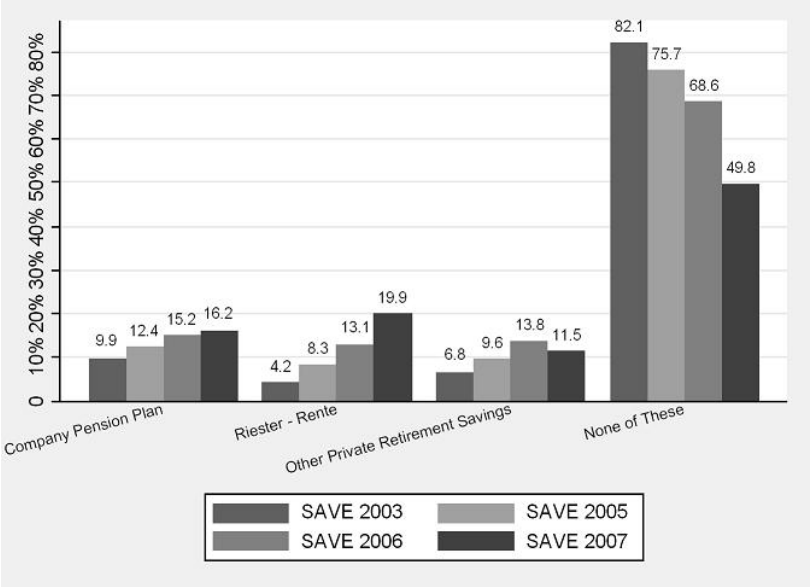


Close to 30% of the households in all waves does not own any of the listed financial assets. To complete the picture of the assets held by the Germans, Figure 13 plots the percentages of households owning assets specifically designed for old-age provision. From 2002 to 2006, the relative frequency of households owning such an asset increased for all the asset types. The fraction holding company pension plans

increased from 9.9% in the 2003 sample to 16% in the 2007 sample; the fraction of households with a "Riester-Rente" almost quintupled, moving from 4.2% in 2002, to 19.9% in 2007, while the fraction of households with other kinds of financial assets designed for old-age provision increased from the 7% in 2002, to the 12% in 2006.

A large fraction of households, however, actually a majority, reports that they are not holding assets for retirement. Even when retired households are excluded from the analysis, the percentage of respondents without retirement assets remains high: 58% of the households that were still working in 2006 claimed to have no retirement assets in 2005. This figure, however, is sensibly smaller in the sample 2007: 50% of all the respondents and only 39.8% of the working households claimed to have no retirement assets. This evidence, together with the increasing fraction of households considering old-age provision as an important savings motive highlighted in section 5.3, suggests an increasing awareness of the need to compensate the planned pension reductions in the pay-as-you-go pension system, with own-provided savings.

Figure 13: Shares of Households Holding a Specific Retirement Savings Asset



Asset choice changes with age and income (Poterba and Samwick, 1997; Sommer, 2004). Table 25 reports the relative frequencies of households holding a certain asset, as a function of six age classes. It is worth reminding that the figures have to be interpreted with care because age and cohort effects are confounded: older age categories represent not only individuals at later stages in their life cycle, but also individuals who were born and educated in an earlier historical period.

The largest share of households with saving accounts is found in the oldest age categories. Both a life-cycle effect and a cohort effect can explain this finding. As a result of the life-cycle effect, in fact, older

individuals might favor this type of investment as it is very safe and does not exhibit any price volatility. Risk and volatility are undesirable for most retired people as they might have to liquidate parts of their savings for consumptions. As a result of the cohort effects, older respondents are less familiar with newer types of financial investments, being grown up with savings accounts as the major savings instrument.

Building savings contracts are most popular among 30 to 39 year old respondents. This outcome is reasonable, as some of the youngest households are still in education, possibly with too little income to save, while many older households already have their own home. It is interesting to note, however, that from 2002 to 2006, the percentage of households holding this kind of asset increased very strongly in the two oldest age categories. In particular, in the age class 70 and above, the percentage of households with building savings accounts more than tripled.

As Figure 12 has already highlighted, the fraction of households holding whole life insurances was clearly lower in SAVE than in other representative German surveys such as EVS and GSOEP. Therefore the wave 2007 restructured the design of the question on financial assets, moving the item “whole life insurances” under the headline “retirement saving assets”. The substantial increase in the ownership rates of life insurances observable in the 2007 sample, therefore, is due more to the improvement in the questionnaire (that helped in better recalling what was already in the portfolios), rather than to a sudden increase in the interest for this product: as a matter of fact, the waves from 2003 to 2006 reveal a slightly declining trend,

particularly pronounced among the households aged 40 to 49. Generally, the breakdown by age classes reveals that whole life insurances are held mainly by middle-aged households, hardly a surprising result, as many of the young respondents do not have sufficient income to invest, while for older households life insurances have been already disbursed.

Fixed income securities exhibit the highest frequencies among 60 to 69 year old households. Also this finding can be the result of a life-cycle effect, as the same argument of low price volatility used for savings accounts applies to government bonds, making them a favorable security for individuals entering retirement age.

The age structure of shares holding in the 2006 and 2007 waves is slightly different than that exhibited in the 2003 and 2005 waves. While the percentage of households holding shares peaks in the 40 – 49 years class in the earlier waves, the peak is reached in the 60 – 69 years class in both the 2006 and 2007 waves. The oldest class (aged 70 and above) exhibit the strongest interest in this kind of financial asset: the percentage of households owning shares, in fact, moved in this age class from 8.9% in 2002, to 22.5% in 2006. Given the relatively high volatility of stock prices, these findings are at odd with the life-cycle argument used above to justify the high percentage of old households owning saving accounts and fixed income securities. Generally, the hump-shaped distribution is roughly in line with the results of Börsch-Supan and Essig (2003) using the EVS data, and the lower participation rates at younger ages coincides with other studies such as Bertaut (1998).

Table 25: Age Structure of Asset Choice

		Age					
	Total	**< 30**	**30-39**	**40-49**	**50-59**	**60-69**	**70+**
			Financial Assets				
			Savings accounts				
2003	59.1%	37.2%	58.2%	56.4%	55.9%	68.7%	71.0%
2005	58.1%	44.8%	54.1%	54.4%	52.6%	67.4%	69.9%
2006	50.1%	39.2%	44.0%	44.2%	45.7%	63.7%	62.8%
2007	59.4%	49.7%	51.7%	55.1%	53.8%	68.3%	76.1%
			Building Savings contracts				
2003	22.4%	24.2%	31.9%	27.2%	25.9%	20.3%	7.3%
2005	27.4%	25.2%	37.1%	30.5%	31.2%	27.2%	14.5%
2006	30.8%	24.5%	37.3%	33.6%	33.6%	34.5%	19.5%
2007	34.7%	37.0%	42.4%	38.2%	33.1%	35.1%	23.4%
			Whole life insurances				
2003	25.2%	16.3%	34.1%	41.5%	35.9%	19.6%	4.1%
2005	25.7%	13.9%	29.9%	35.3%	37.6%	27.0%	7.2%
2006	22.7%	12.2%	27.4%	29.1%	34.7%	20.8%	7.4%
2007	31.8%	21.1%	37.2%	44.7%	42.4%	27.4%	11.7%
			Fixed income securities				
2003	7.1%	3.4%	5.3%	7.9%	8.5%	9.8%	6.4%
2005	7.2%	3.7%	3.5%	6.7%	8.7%	10.8%	8.4%
2006	7.3%	4.9%	3.6%	5.8%	6.1%	13.4%	9.8%
2007	10.2%	5.6%	5.8%	11.8%	7.6%	14.9%	13.8%
			Shares and real estate funds				
2003	14.5%	8.4%	17.4%	19.2%	14.7%	16.7%	8.9%
2005	17.9%	10.4%	20.4%	24.4%	17.9%	16.5%	14.5%
2006	17.3%	11.9%	18.0%	20.4%	14.4%	21.9%	15.3%
2007	24.0%	18.5%	24.7%	27.2%	20.9%	28.4%	22.5%
			Other financial assets				
2003	-	-	-	-	-	-	-
2005	2.4%	1.3%	3.0%	2.9%	2.2%	2.2%	2.6%
2006	3.2%	3.8%	2.7%	3.4%	3.5%	2.7%	3.4%
2007	3.6%	2.2%	3.5%	5.6%	3.7%	2.3%	3.0%
			None of these				
2003	28.6%	48.3%	27.9%	25.8%	28.5%	20.5%	26.4%
2005	28.7%	39.4%	27.8%	30.5%	29.6%	22.6%	25.4%
2006	32.6%	46.9%	29.2%	39.6%	32.9%	22.3%	28.7%
2007	29.1%	36.7%	31.9%	29.9%	35.8%	21.0%	21.1%

(continues…)

Table 25 (continued): Age Structure of Asset Choice

		Age					
	Total	**< 30**	**30-39**	**40-49**	**50-59**	**60-69**	**70 +**
			Retirement Saving				
			Company pension plans				
2003	9.9%	5.6%	15.7%	14.4%	11.7%	7.3%	4.7%
2005	12.4%	6.6%	17.4%	22.4%	16.5%	6.8%	2.6%
2006	15.2%	6.2%	24.5%	26.6%	18.5%	7.4%	2.7%
2007	16.2%	8.2%	22.0%	28.4%	14.7%	11.3%	6.6%
			Riester-Rente				
2003	4.2%	4.0%	8.2%	8.1%	4.3%	0.6%	0.6%
2005	8.3%	6.3%	18.0%	16.1%	8.0%	1.1%	0.0%
2006	13.1%	10.3%	30.1%	21.2%	13.5%	1.3%	0.0%
2007	19.9%	17.9%	38.6%	34.8%	19.9%	3.0%	0.6%
			Other private retirement savings				
2003	6.8%	6.8%	11.7%	11.4%	8.4%	2.2%	1.1%
2005	9.6%	9.0%	17.6%	15.3%	13.9%	2.1%	0.5%
2006	13.8%	16.0%	26.7%	18.5%	17.0%	3.8%	0.6%
2007	11.5%	11.5%	20.2%	14.9%	14.6%	6.0%	1.3%
			None of these				
2003	82.1%	85.0%	71.4%	71.1%	78.7%	90.4%	94.7%
2005	75.5%	81.5%	58.4%	58.2%	68.5%	91.2%	96.9%
2006	68.6%	73.2%	45.6%	51.1%	61.7%	88.5%	96.6%
2007	49.8%	60.6%	30.0%	32.6%	40.2%	59.8%	81.8%

Shares of households holding other types of financial assets are quite evenly distributed over the different age classes. In comparison with 2004, possession of these innovative assets in 2005 is higher in each age class, while in 2006 it increased particularly among households aged 30 to 39 and 40 to 49. Finally, households under 30 years are most likely not to have any financial asset, which could be the outcome of lower income in this age class.

Assets designed for old-age provision are held mostly by middle-aged households. Not surprisingly, households in the oldest age classes do not own such kind of assets as they are already retired. Furthermore, given the pay-as-you-go pension system used in Germany up to few years ago, private old-age provision in younger years was not essential for households that are now 60 years or older. From 2002 to 2006, an increase in the percentage of households holding retirement assets is observable in almost all the age classes, reaching a peak in the group of households aged 30 to 39 years. In particular, the percentage of respondents in this age class owning a company pension plan increased by 40%, the percentage of those holding other sorts of retirement assets increased by 73% and the percentage of those with a Riester-Rente contract is, in 2006, more than four times bigger than in 2002.

Not only in all the waves the percentage of households without retirement assets in the youngest age class is above the sample average, but also the pace at which this percentage declined from 2002 to 2006 is much slower for the under 30: while on average the fraction of households without retirement assets dropped by 65%, in the youngest age class it dropped only by 24%. In addition to the lower income that may reduce their saving and investment opportunities, the relatively long time-horizon of households in this age class may lead them to overlook their needs during the retirement years and to postpone the decision of buying retirement assets.

Table 26 illustrates the percentage of households holding a specific asset, dependent on the adjusted per-capita net income

quintiles. As before, the net income per-capita is adjusted dividing the household's net monthly income by the square root of the household size. The pattern that emerges is pretty uniform: wealthier households are more likely to hold any type of financial or retirement savings asset. Discrepancies between the first and fifth quintile are especially high for whole life insurances, shares and company pension plans. For example, on average in 2006, only less than 5% of the households in the first income quintile has company pension plans, compared to 27% of the households in the highest quintile.

The percentage of households without financial assets (retirement assets excluded) increases, from 2002 to 2005, in each income quintile but the fifth, where it decreases by 17%. The magnitude of the increase in this percentage is intensified as income goes up reaching a peak in the fourth quintile where, in 2005, the household fraction without financial assets was 36% higher than in 2002. The percentage of households without retirement assets decreases, form 2002 to 2005, in all the income quintiles, with a magnitude that increase with income.

Table 26: Income Structure of Asset Choice

		Per capita Monthly Net Income				
	Total	**First quintile**	**Second quintile**	**Third quintile**	**Fourth quintile**	**Fifth quintile**
		Financial Assets				
		Savings accounts				
2003	59.1%	34.2%	52.0%	69.1%	72.4%	67.4%
2005	58.1%	39.1%	47.1%	65.2%	67.7%	72.2%
2006	50.1%	27.4%	39.4%	53.7%	64.4%	67.2%
2007	59.4%	40.2%	43.0%	68.2%	73.1%	72.4%
		Building Savings contracts				
2003	22.4%	9.0%	16.0%	23.8%	33.2%	29.7%
2005	27.4%	12.7%	19.0%	30.0%	35.3%	41.0%
2006	30.8%	11.9%	24.6%	30.8%	42.0%	46.2%
2007	34.7%	17.3%	21.5%	40.4%	46.8%	47.5%
		Whole life insurances				
2003	25.2%	7.2%	17.8%	23.1%	35.7%	41.0%
2005	25.7%	12.0%	19.2%	24.4%	33.2%	40.7%
2006	22.7%	8.8%	18.2%	19.4%	32.1%	36.4%
2007	31.8%	14.7%	24.0%	32.4%	40.6%	47.4%
		Fixed income securities				
2003	7.1%	1.4%	1.7%	7.5%	9.7%	14.6%
2005	7.2%	2.1%	2.8%	4.4%	9.5%	17.8%
2006	7.3%	1.6%	2.3%	4.9%	11.1%	17.4%
2007	10.2%	2.0%	4.4%	8.9%	16.4%	19.5%
		Shares and real estate funds				
2003	14.5%	3.2%	6.3%	11.9%	19.0%	31.2%
2005	17.9%	5.6%	10.3%	13.8%	22.3%	38.1%
2006	17.3%	3.8%	8.7%	12.7%	24.6%	38.9%
2007	24.0%	6.5%	7.7%	21.9%	35.4%	48.4%
		Other financial assets				
2003	-	-	-	-	-	-
2005	2.4%	1.5%	1.7%	2.2%	1.7%	5.1%
2006	3.2%	1.7%	1.8%	3.1%	2.8%	7.0%
2007	3.6%	1.3%	0.4%	2.0%	4.9%	9.3%
		None of these				
2003	28.6%	59.0%	35.2%	20.9%	13.7%	15.3%
2005	28.7%	51.8%	38.5%	21.5%	17.3%	13.1%
2006	32.6%	60.6%	43.0%	27.7%	17.2%	12.1%
2007	29.1%	55.7%	44.3%	17.4%	14.3%	13.9%

(continues…)

Table 26 (continued): Income Structure of Asset Choice

		Per capita Monthly Net Income				
	Total	**First quintile**	**Second quintile**	**Third quintile**	**Fourth quintile**	**Fifth quintile**
			Retirement Savings			
			Company pension plans			
2003	9.9%	3.0%	5.0%	9.1%	15.6%	16.6%
2005	12.4%	2.9%	5.0%	13.0%	17.3%	24.4%
2006	15.2%	2.8%	8.3%	15.9%	22.2%	28.1%
2007	16.2%	4.7%	8.3%	15.0%	25.9%	27.1%
			Riester-Rente			
2003	4.2%	2.7%	4.6%	3.6%	5.8%	4.3%
2005	8.3%	5.4%	7.3%	8.9%	8.6%	11.3%
2006	13.1%	9.0%	15.5%	14.5%	12.5%	14.2%
2007	19.9%	14.5%	17.1%	23.7%	21.7%	22.8%
			Other private retirement savings			
2003	6.8%	3.0%	5.6%	4.5%	9.5%	10.9%
2005	9.6%	4.3%	8.4%	6.9%	12.6%	16.0%
2006	13.8%	7.1%	10.8%	12.3%	15.9%	23.9%
2007	11.5%	6.5%	8.1%	10.2%	14.6%	17.8%
			None of these			
2003	82.1%	92.4%	86.6%	85.1%	74.0%	72.9%
2005	75.5%	88.1%	82.8%	75.6%	70.7%	60.5%
2006	68.6%	82.5%	73.2%	68.4%	63.5%	54.0%
2007	49.8%	67.0%	58.6%	49.1%	38.7%	35.5%

6. Conclusions: What did we learn so far? Which questions are still open?

Understanding saving behavior is an important question not only for economists, but also for policy-makers. The threat of population aging and the danger of unsustainable public insurance systems put the spotlight on own savings as a device for old-age provision, long-term care and even healthcare. A deeper understanding of households' savings is therefore crucial to solve the pension crisis and to design successful policies.

The SAVE survey, started in 2001 by the Mannheim Research Institute for the Economics of Aging (MEA), offers detailed information on financial and psychological aspects of German households, representing a new and precious instrument for researcher in this field.

While introducing the reader to the richness and the potential of SAVE, and describing its methodology, this book also offered an overview of the saving behavior of German households, focusing on three main questions: how much do German save, which are the main reasons behind savings, and how do they save.

The results show that German households have a high willingness to save: the median household saves more than 5% of its income, while the mean saving rate is more than 10%. The changing age structure appears to have a very modest effect on saving behavior

since older households still have positive saving rates and hold on to a substantial amount of wealth.

The latter result is even more interesting when read together with the reported ranking of various saving reasons. One may, for example, assume that old households do not consume their stock of wealth because they want to bequeath it. Surprisingly, however, even among the older households the majority of the respondents consider the bequest motive as rather unimportant. The analysis of the saving reasons highlight another important point: taking advantage of governmental subsidies is – so the respondents claim -- less important than saving for old-age provision. This is good news: many respondents obviously understood the real reason to save for old age is the need for old-age provision. One should not, however, rush to the conclusion that one could take the Riester subsidies away. Such a conclusion can only be drawn from a setting in which some persons receive a subsidy and others do not.

In general, Germans appear to save regularly and in a planned fashion: more than one third of the respondents report to save regularly every month and almost 30% have specific saving targets in mind. German households are still conservative in their assets choice, owning mainly savings accounts and building savings contracts. Young families and richer families, however, appear more willing to invest in a broader range of financial instruments. Particularly remarkable is the increasing interest in private pension plans (“Riester-Rente”), whose ownership rates tripled from 2002 to 2005, confirming the relevance that Germans assign to savings for old-age provision.

7. Technical appendix

7.1 Questionnaire 2007

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save

Sparen und Altersvorsorge in Deutschland (SAVE)

Ziel dieser Studie im Auftrag des Mannheimer Forschungsinstituts Ökonomie und Demographischer Wandel (mea) ist die wissenschaftliche Untersuchung der Vorsorgemöglichkeiten und des Vorsorgebedarfs privater Haushalte: Haben wir ausreichend für unser Wohlergehen im Alter vorgesorgt? In welchen Bereichen besteht Vorsorgebedarf für uns und unsere Familie?

Die Beantwortung dieser Fragen ist wichtig für unsere Alters- und Gesundheitsversorgung und für viele andere Bereiche unseres öffentlichen und privaten Lebens. Durch Ihre Teilnahme an dieser Studie helfen Sie uns, die Zusammenhänge zwischen unserer Gesundheit, unserer Lebensweise und unserer zukünftigen wirtschaftlichen Situation besser zu verstehen.

Derzeitige Lebenssituation

1. Zunächst sind nachfolgend einige Aspekte aufgeführt, die im Leben eine Rolle spielen.

Beurteilen Sie bitte anhand einer Skala von 0 bis 10, inwieweit Sie damit zufrieden sind.
*Dabei bedeutet **"0" völlig unzufrieden** und **"10" völlig zufrieden***

Wie zufrieden sind Sie mit...	***völlig unzufrieden***										***völlig zufrieden***
- Ihrer Gesundheit?	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5	☐ 6	☐ 7	☐ 8	☐ 9	☐ 10
- Ihrer Arbeit?	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5	☐ 6	☐ 7	☐ 8	☐ 9	☐ 10
- Ihrer Wohnung?	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5	☐ 6	☐ 7	☐ 8	☐ 9	☐ 10
- dem Einkommen Ihres Haushalts?	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5	☐ 6	☐ 7	☐ 8	☐ 9	☐ 10
- Ihrem Lebensstandard insgesamt?	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5	☐ 6	☐ 7	☐ 8	☐ 9	☐ 10

2. Sind Sie ...

Männlich ☐ Weiblich ☐

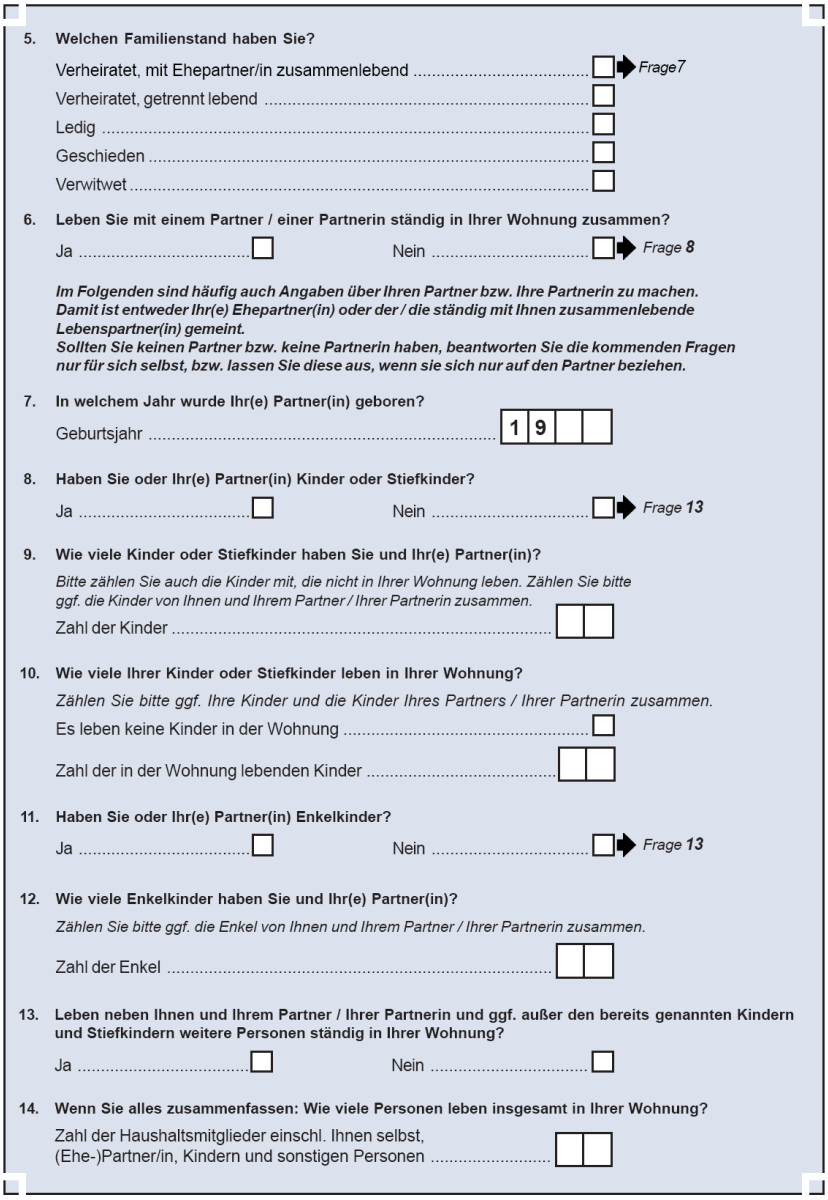
3. In welchem Jahr wurden Sie geboren?

Geburtsjahr: 1 9 ☐ ☐

4. Haben Sie die deutsche Staatsangehörigkeit?

Bei doppelter Staatsangehörigkeit bitte „Ja" ankreuzen.

Ja ☐ Nein ☐



5. **Welchen Familienstand haben Sie?**

Verheiratet, mit Ehepartner/in zusammenlebend ☐ → *Frage7*
Verheiratet, getrennt lebend ☐
Ledig ☐
Geschieden ☐
Verwitwet ☐

6. **Leben Sie mit einem Partner / einer Partnerin ständig in Ihrer Wohnung zusammen?**

Ja ☐ Nein ☐ → *Frage **8***

Im Folgenden sind häufig auch Angaben über Ihren Partner bzw. Ihre Partnerin zu machen. Damit ist entweder Ihr(e) Ehepartner(in) oder der / die ständig mit Ihnen zusammenlebende Lebenspartner(in) gemeint.
Sollten Sie keinen Partner bzw. keine Partnerin haben, beantworten Sie die kommenden Fragen nur für sich selbst, bzw. lassen Sie diese aus, wenn sie sich nur auf den Partner beziehen.

7. **In welchem Jahr wurde Ihr(e) Partner(in) geboren?**

Geburtsjahr 1 9 ☐ ☐

8. **Haben Sie oder Ihr(e) Partner(in) Kinder oder Stiefkinder?**

Ja ☐ Nein ☐ → *Frage **13***

9. **Wie viele Kinder oder Stiefkinder haben Sie und Ihr(e) Partner(in)?**

Bitte zählen Sie auch die Kinder mit, die nicht in Ihrer Wohnung leben. Zählen Sie bitte ggf. die Kinder von Ihnen und Ihrem Partner / Ihrer Partnerin zusammen.

Zahl der Kinder ☐☐

10. **Wie viele Ihrer Kinder oder Stiefkinder leben in Ihrer Wohnung?**

Zählen Sie bitte ggf. Ihre Kinder und die Kinder Ihres Partners / Ihrer Partnerin zusammen.

Es leben keine Kinder in der Wohnung ☐

Zahl der in der Wohnung lebenden Kinder ☐☐

11. **Haben Sie oder Ihr(e) Partner(in) Enkelkinder?**

Ja ☐ Nein ☐ → *Frage **13***

12. **Wie viele Enkelkinder haben Sie und Ihr(e) Partner(in)?**

Zählen Sie bitte ggf. die Enkel von Ihnen und Ihrem Partner / Ihrer Partnerin zusammen.

Zahl der Enkel ☐☐

13. **Leben neben Ihnen und Ihrem Partner / Ihrer Partnerin und ggf. außer den bereits genannten Kindern und Stiefkindern weitere Personen ständig in Ihrer Wohnung?**

Ja ☐ Nein ☐

14. **Wenn Sie alles zusammenfassen: Wie viele Personen leben insgesamt in Ihrer Wohnung?**

Zahl der Haushaltsmitglieder einschl. Ihnen selbst, (Ehe-)Partner/in, Kindern und sonstigen Personen ☐☐

2

15. Welchen höchsten allgemein bildenden Schulabschluss haben Sie und Ihr(e) Partner(in)?

	Sie selbst	Ihr Partner/ Ihre Partnerin
Hauptschul- / Volksschulabschluss	☐	☐
Mittlere Reife / Realschulabschluss	☐	☐
Abschluss Polytechnische Oberschule, 10. Klasse	☐	☐
Fachhochschulreife	☐	☐
Allgemeine oder fachgebundene Hochschulreife / Abitur	☐	☐

16. Haben Sie und Ihr(e) Partner(in) eine abgeschlossene Berufsausbildung?

Falls es mehrere Abschlüsse sind, nennen Sie bitte nur den höchsten.

	Sie selbst	Ihr Partner/ Ihre Partnerin
Nein, keine abgeschlossene Berufsausbildung	☐	☐
Lehre / Gesellenprüfung	☐	☐
Berufsfachschule, Höhere Handelsschule	☐	☐
Meister- / Technikerschule	☐	☐
Ingenieurschule, Fachhochschule	☐	☐
Hochschulabschluss, Lehrerausbildung	☐	☐
Beamtenausbildung	☐	☐
Sonstiger Abschluss	☐	☐

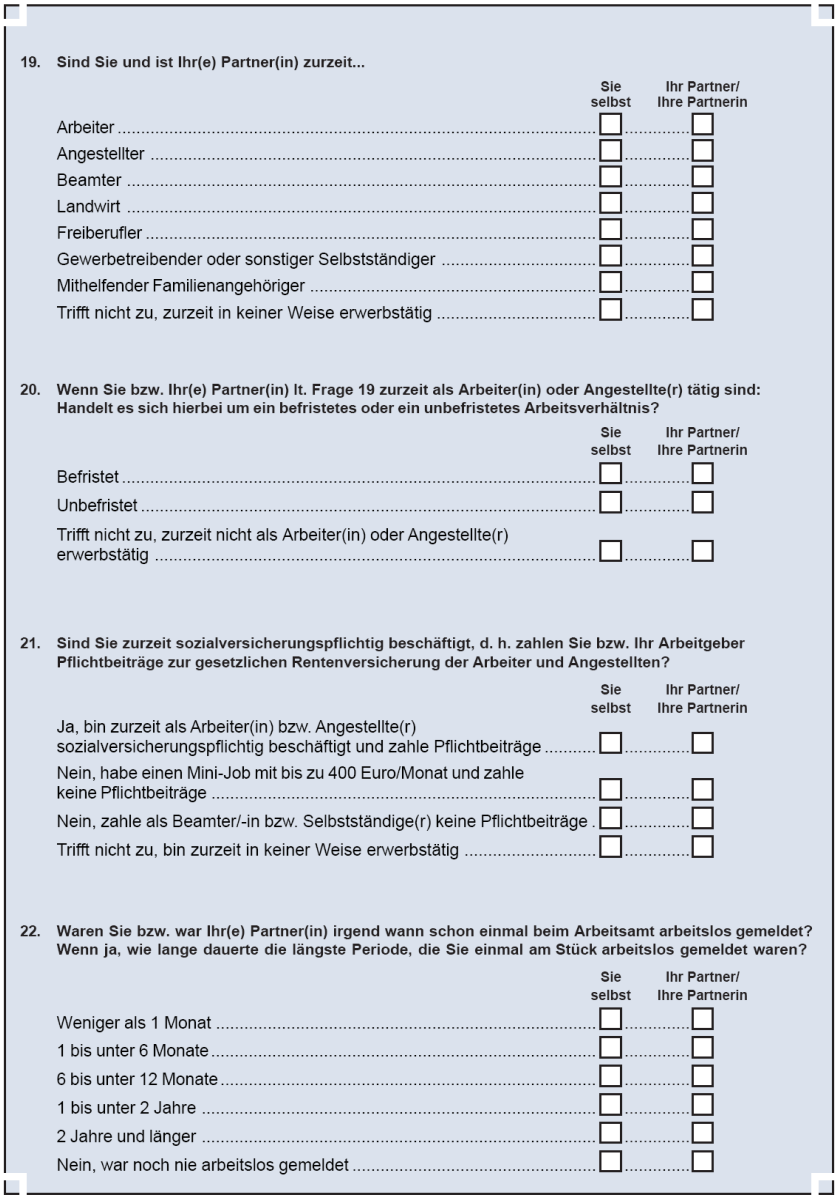
17. Sind Sie und ist Ihr(e) Partner(in) zurzeit in irgend einer Weise erwerbstätig oder nicht erwerbstätig?

Unter Erwerbstätigkeit wird jede bezahlte bzw. mit einem Einkommen verbundene Tätigkeit verstanden, egal welchen zeitlichen Umfang sie hat. Was auf dieser Liste trifft auf Sie und Ihr(e) Partner(in) am besten zu?

	Sie selbst	Ihr Partner/ Ihre Partnerin	
Vollzeiterwerbstätig mit einer wöchentlichen Arbeitszeit von 35 Stunden oder mehr	☐	☐	➡ *Frage* ***19***
Teilzeiterwerbstätig mit einer wöchentlichen Arbeitszeit von 15 bis unter 35 Stunden	☐	☐	
Geringfügig beschäftigt mit einer wöchentlichen Arbeitszeit unter 15 Stunden	☐	☐	
Gelegentlich erwerbstätig	☐	☐	
In keiner Weise erwerbstätig	☐	☐	

18. Sofern lt. Vorfrage in Teilzeitbeschäftigung, geringfügig, gelegentlich oder in keiner Weise erwerbstätig: Wenn Sie einmal von den Erwerbstätigkeiten absehen, was von dem Folgenden trifft dann auf Sie und Ihren Partner / Ihre Partnerin zu?

	Sie selbst	Ihr Partner/ Ihre Partnerin
Hausfrau / Hausmann	☐	☐
In Ruhestand, Pension oder Vorruhestand	☐	☐
Arbeitslos	☐	☐
In Ausbildung, Lehre, Studium oder Umschulung	☐	☐
Wehr- oder Ersatzdienst	☐	☐
Mutterschafts-/ Erziehungsurlaub bzw. Elternzeit oder sonstige Beurlaubung	☐	☐



19. Sind Sie und ist Ihr(e) Partner(in) zurzeit...

	Sie selbst	Ihr Partner/ Ihre Partnerin
Arbeiter	☐	☐
Angestellter	☐	☐
Beamter	☐	☐
Landwirt	☐	☐
Freiberufler	☐	☐
Gewerbetreibender oder sonstiger Selbstständiger	☐	☐
Mithelfender Familienangehöriger	☐	☐
Trifft nicht zu, zurzeit in keiner Weise erwerbstätig	☐	☐

20. Wenn Sie bzw. Ihr(e) Partner(in) lt. Frage 19 zurzeit als Arbeiter(in) oder Angestellte(r) tätig sind: Handelt es sich hierbei um ein befristetes oder ein unbefristetes Arbeitsverhältnis?

	Sie selbst	Ihr Partner/ Ihre Partnerin
Befristet	☐	☐
Unbefristet	☐	☐
Trifft nicht zu, zurzeit nicht als Arbeiter(in) oder Angestellte(r) erwerbstätig	☐	☐

21. Sind Sie zurzeit sozialversicherungspflichtig beschäftigt, d. h. zahlen Sie bzw. Ihr Arbeitgeber Pflichtbeiträge zur gesetzlichen Rentenversicherung der Arbeiter und Angestellten?

	Sie selbst	Ihr Partner/ Ihre Partnerin
Ja, bin zurzeit als Arbeiter(in) bzw. Angestellte(r) sozialversicherungspflichtig beschäftigt und zahle Pflichtbeiträge	☐	☐
Nein, habe einen Mini-Job mit bis zu 400 Euro/Monat und zahle keine Pflichtbeiträge	☐	☐
Nein, zahle als Beamter/-in bzw. Selbstständige(r) keine Pflichtbeiträge	☐	☐
Trifft nicht zu, bin zurzeit in keiner Weise erwerbstätig	☐	☐

22. Waren Sie bzw. war Ihr(e) Partner(in) irgend wann schon einmal beim Arbeitsamt arbeitslos gemeldet? Wenn ja, wie lange dauerte die längste Periode, die Sie einmal am Stück arbeitslos gemeldet waren?

	Sie selbst	Ihr Partner/ Ihre Partnerin
Weniger als 1 Monat	☐	☐
1 bis unter 6 Monate	☐	☐
6 bis unter 12 Monate	☐	☐
1 bis unter 2 Jahre	☐	☐
2 Jahre und länger	☐	☐
Nein, war noch nie arbeitslos gemeldet	☐	☐

4

Soziales Umfeld

Bei den nächsten Fragen geht es um Hilfe, die Sie Menschen in Ihrem Umfeld gegeben haben, und um Hilfe, die Sie von Menschen aus Ihrem Umfeld bekommen haben.

23. Denken Sie bitte an die letzten zwölf Monate:
Haben Sie oder Ihr(e) Partner(in) in dieser Zeit von einem Familienmitglied außerhalb Ihres Haushalts, von Freunden oder von Nachbarn praktische Hilfe bekommen?

Hierzu zählen Hilfe im Haushalt (kleinere Reparaturen, Gartenarbeit, Einkaufen etc.), Hilfe mit Behörden und Ämtern (Ausfüllen von Formularen, finanzielle oder rechtliche Angelegenheiten etc.), Kinderbetreuung oder Pflege bei Krankheit und Alter.

Ja ☐ Nein ☐ ➡ *Frage **25***

24. Und wie häufig haben Sie oder Ihr(e) Partner(in) in den letzten zwölf Monaten solche Hilfe bekommen?

Täglich ☐
Wöchentlich ☐
Monatlich ☐
Weniger häufig ☐

25. Wie häufig haben Sie bzw. Ihr(e) Partner(in) sich in den letzten vier Wochen freiwillig engagiert?

Hierzu zählen ehrenamtliche Tätigkeiten, die Betreuung eines kranken oder behinderten Erwachsenen, Hilfe für Familienmitglieder, Freunde oder Nachbarn, Teilnahme an Fort- oder Weiterbildungskursen, Aktivitäten in Vereinen, Kirchen, politischen Organisationen oder Bürgerinitiativen.

	Sie selbst	Ihr Partner/ Ihre Partnerin
Täglich	☐	☐
Wöchentlich	☐	☐
Monatlich	☐	☐
Weniger häufig	☐	☐

Gesundheit

Bei den nächsten Fragen geht es um Ihren Gesundheitszustand und Ihre gesundheitliche Versorgung.

26. Würden Sie sagen, Ihr Gesundheitszustand oder der Gesundheitszustand Ihres Partners/Ihrer Partnerin ist …

	Sie selbst	Ihr Partner/ Ihre Partnerin
Sehr gut	☐	☐
Gut	☐	☐
Mittelmäßig	☐	☐
Schlecht	☐	☐
Sehr schlecht	☐	☐

27. Haben Sie oder Ihr(e) Partner(in) langwierige Gesundheitsprobleme, Krankheiten oder Behinderungen?

Unter langwierig verstehen wir, dass Sie damit schon seit längerer Zeit Probleme haben oder wahrscheinlich für längere Zeit Probleme haben werden.

	Sie selbst	Ihr Partner/ Ihre Partnerin
Ja	☐	☐
Nein	☐	☐

28. Wurde bei Ihnen bzw. bei Ihrem Partner/Ihrer Partnerin eine der unten aufgeführten Krankheiten bzw. Symptome festgestellt? Bitte alle zutreffenden ankreuzen.

	Sie selbst	Ihr Partner/ Ihre Partnerin
Herzkrankheiten	☐	☐
Bluthochdruck	☐	☐
Hohe Cholesterinwerte	☐	☐
Schlaganfall bzw. Durchblutungsstörungen im Gehirn	☐	☐
Chronische Erkrankungen der Lunge, Asthma	☐	☐
Krebs oder bösartiger Tumor, ausschließlich kleinerer Hautkrebserkrankungen	☐	☐
Magengeschwür, Zwölffingerdarmgeschwür	☐	☐
Chronische Rückenerkrankungen	☐	☐
Psychische Erkrankungen	☐	☐
Andere Krankheiten, die nicht genannt wurden	☐	☐
Keine der genannten Krankheiten	☐	☐

29. Rauchen Sie, raucht Ihr(e) Partner(in) regelmäßig?

	Sie selbst	Ihr Partner/ Ihre Partnerin	
Ja	☐	☐	➡ *Frage* ***31***
Nein	☐	☐	

30. Haben Sie bzw. Ihr(e) Partner(in) früher einmal regelmäßig geraucht?

	Sie selbst	Ihr Partner/ Ihre Partnerin
Ja	☐	☐
Nein	☐	☐

31. Während der letzten sechs Monate, wie häufig haben Sie bzw. Ihr(e) Partner(in) alkoholische Getränke konsumiert?

	Sie selbst	Ihr Partner/ Ihre Partnerin
Täglich	☐	☐
An fünf oder sechs Tagen der Woche	☐	☐
An drei oder vier Tagen der Woche	☐	☐
Ein- oder zweimal in der Woche	☐	☐
Ein- oder zweimal im Monat	☐	☐
Weniger als einmal im Monat	☐	☐
Überhaupt nicht in den letzten sechs Monaten	☐	☐

32. Wie oft üben Sie bzw. Ihr(e) Partner(in) eine anstrengende körperliche Tätigkeit aus, zum Beispiel beim Sport, bei schweren Arbeiten im Haus oder im Beruf?

	Sie selbst	Ihr Partner/ Ihre Partnerin
Mehr als zwei Mal wöchentlich	☐	☐
Ein bis zwei Mal wöchentlich	☐	☐
Ein bis drei Mal pro Monat	☐	☐
So gut wie nie oder nie	☐	☐

33. Denken Sie bitte an die letzten zwölf Monate: Wie oft haben Sie bzw. Ihr(e) Partner(in) insgesamt einen Arzt aufgesucht oder mit einem Arzt über Ihre Gesundheit gesprochen?

Bitte zählen Sie auch Behandlungen in der Notaufnahme oder ambulante Behandlungen mit, aber nicht stationäre Aufenthalte im Krankenhaus oder Zahnarztbesuche.

	Sie selbst	Ihr Partner/ Ihre Partnerin
Anzahl	☐☐	☐☐

34. Waren Sie bzw. Ihr(e) Partner(in) während der letzten zwölf Monate bei einem Zahnarzt?

	Sie selbst	Ihr Partner/ Ihre Partnerin
Ja	☐	☐
Nein	☐	☐

35. Waren Sie bzw. Ihr(e) Partner(in) während der letzten zwölf Monate zur stationären Behandlung im Krankenhaus? *Bitte berücksichtigen Sie Aufenthalte sowohl in allgemeinen Krankenhäusern als auch in psychiatrischen oder sonstigen Spezialkrankenhäusern.*

	Sie selbst	Ihr Partner/ Ihre Partnerin
Ja	☐	☐
Nein	☐	☐ ➡ *Frage **37***

36. Wie viele Nächte haben Sie bzw. Ihr(e) Partner(in) insgesamt während der letzten zwölf Monate im Krankenhaus verbracht?

Bitte berücksichtigen Sie Aufenthalte sowohl in allgemeinen Krankenhäusern als auch in psychiatrischen oder sonstigen Spezialkrankenhäusern.

	Sie selbst	Ihr Partner/ Ihre Partnerin
Anzahl	☐☐☐	☐☐☐

37. Sind Sie in der sozialen Pflegeversicherung, in der alle gesetzlich Krankenversicherten Pflichtmitglieder sind, oder sind Sie in einer privaten Pflegeversicherung versichert?

Soziale Pflegeversicherung ☐

Private Pflegeversicherung ☐ ➡ *Frage **39***

Weder noch ☐ ➡ *Frage **39***

38. Haben Sie über Ihre Mitgliedschaft in der sozialen Pflegeversicherung hinaus noch eine private Pflegezusatzversicherung abgeschlossen?

Ja ☐ Nein ☐

Ersparnisbildung und Vorsorge

Nun kommen wir zum Sparen und zur Vorsorge sowie zum Umgang mit Einkommen und Vermögen.

39. Wer trifft im Allgemeinen die finanziellen Entscheidungen in Ihrem Haushalt?

Bitte nur ankreuzen, falls Sie mit einem Partner zusammen im gleichen Haushalt leben.

- Vorrangig Sie allein ☐
- Vorrangig Ihr(e) Partner(in) ☐
- Sie zusammen mit Ihrem Partner / Ihrer Partnerin ☐
- Sie oder Ihr(e) Partner(in) zusammen mit anderen Personen ☐

40. Sprechen Sie über finanzielle Angelegenheiten mit...

Mehrfachnennungen möglich.

- Verwandten, die nicht in Ihrer Wohnung wohnen ☐ → *Frage **43***
- Freunden ☐ → *Frage **43***
- Arbeitskollegen ☐ → *Frage **43***
- Nachbarn ☐ → *Frage **43***
- Kundenbetreuern von Banken, Versicherungen oder Finanzdienstleistern ☐
- Spreche mit keiner dieser Personen über finanzielle Angelegenheiten ☐ → *Frage **43***

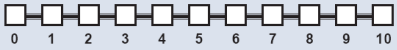
41. Wie oft lassen Sie sich von Kundenbetreuern beraten?

- Mindestens ein Mal pro Monat ☐
- Etwa 4 Mal im Jahr ☐
- Ein Mal im Jahr ☐
- Weniger als ein Mal im Jahr ☐

42. Wie stark folgen Sie den erhaltenen Ratschlägen?

Bewerten Sie es bitte anhand einer Skala von 0 bis 10.
*"0" bedeutet: Ich halte mich **gar nicht** an Ratschläge von Finanzberatern / Kundenbetreuern*
*"10" bedeutet: Ich halte mich **vollständig** an Ratschläge von Finanzberatern / Kundenbetreuern*

Gar nicht *an Ratschläge halten* — ***Vollständig*** *an Ratschläge halten*



43. Wie haben Sie und Ihr(e) Partner(in) die letzte Einkommensteuererklärung erstellt?

Falls mehrere Einkommensteuererklärungen abgegeben wurden, sind Mehrfachnennungen möglich.

- Ohne fremde Hilfe ☐
- Mit Hilfe von Verwandten ☐
- Mit Hilfe von Bekannten ☐
- Mit Hilfe eines Steuerberaters ☐
- Habe noch nie eine Einkommensteuererklärung erstellt ☐

44. Hatten Sie bzw. Ihr(e) Partner(in) im Jahr 2006 größere außergewöhnliche Einkünfte oder Erbschaften von über 500 Euro bezogen? Was von dem Folgenden trifft zu?

Mehrfachnennungen möglich.

- Erbschaft eines Geldbetrages oder eines Kapitalbetrages z. B. Wertpapiere ☐
- Erbschaft eines Hauses oder Grundstücks ☐
- Schenkung eines Geld- oder eines Kapitalbetrages ☐
- Auszahlung einer Lebensversicherung oder sonstigen Altersvorsorge ☐
- Auszahlung eines Bausparvertrages ☐
- Lotteriegewinn ☐
- Einmalige Gewinnausschüttung des Arbeitgebers (nicht 13. Monatsgehalt) ☐
- Vermögensausgleich im Scheidungsfall ☐
- Einkommensteuerrückzahlung ☐
- Sonstige einmaligen Geld- oder Kapitaleinkünfte ☐
- Nein, nichts davon ☐

45. Und wie hoch waren diese (bei Frage 44 angekreuzten) einmaligen Einkünfte aus:

(Betrag bitte rechtsbündig eintragen)

- Erbschaft eines Geldbetrages oder Kapitalbetrages ☐☐☐☐☐☐☐ €
- Erbschaft eines Hauses oder Grundstücks ☐☐☐☐☐☐☐ €
- Schenkung ☐☐☐☐☐☐☐ €
- Auszahlung einer Lebensversicherung ☐☐☐☐☐☐☐ €
- Auszahlung eines Bausparvertrages ☐☐☐☐☐☐☐ €
- Lotteriegewinn ☐☐☐☐☐☐☐ €
- Einmalige Gewinnausschüttung des Arbeitgebers (nicht 13. Monatsgehalt) nach Abzug von Steuern ☐☐☐☐☐☐☐ €
- Vermögensausgleich im Scheidungsfall ☐☐☐☐☐☐☐ €
- Einkommensteuerrückzahlung ☐☐☐☐☐☐☐ €
- Sonstige einmalige Geld- oder Kapitaleinkünfte ☐☐☐☐☐☐☐ €

46. Was haben Sie bzw. Ihr(e) Partner(in) mit dem erhaltenen Geld gemacht? Was von dem Folgenden trifft zu?

Bitte geben Sie nur Beträge von mindestens 250 Euro an; Mehrfachnennungen möglich.

- Sparanlage mit eindeutig bestimmtem Verwendungszweck (z. B. Bausparvertrag, kapitalbildende Lebensversicherung, Privatrentenvertrag) ☐
- Sonstige Geldanlage, z. B. Kauf von Aktien oder Wertpapieren ☐
- Kauf einer Wohnung bzw. eines Hauses ☐
- Ausbau oder Renovierung einer Wohnung bzw. eines Hauses ☐
- Kauf von Gebrauchsgegenständen, z. B. Auto, Möbel ☐
- Urlaubsreise ☐
- Geschenke an Verwandte oder Freunde ☐
- Dinge des täglichen Lebens ☐
- Tilgung von Schulden ☐
- Sonstiges, ☐

und zwar:

(bitte eintragen)

47. Und welchen Betrag haben Sie bzw. Ihr(e) Partner(in) für den jeweiligen Zweck aufgewandt?

(Betrag bitte rechtsbündig eintragen)

- Sparanlage mit eindeutig bestimmtem Verwendungszweck (z. B. Bausparvertrag, kapitalbildende Lebensversicherung, Privatrentenvertrag) ☐☐☐☐☐☐☐ €
- Sonstige Geldanlage, z. B. Kauf von Aktien oder Wertpapieren ☐☐☐☐☐☐☐ €
- Kauf einer Wohnung bzw. eines Hauses ☐☐☐☐☐☐☐ €
- Ausbau oder Renovierung einer Wohnung, bzw. eines Hauses ☐☐☐☐☐☐☐ €
- Kauf von Gebrauchsgegenständen, z. B. Auto, Möbel ☐☐☐☐☐☐☐ €
- Urlaubsreise ☐☐☐☐☐☐☐ €
- Geschenke an Verwandte oder Freunde ☐☐☐☐☐☐☐ €
- Dinge des täglichen Lebens ☐☐☐☐☐☐☐ €
- Tilgung von Schulden ☐☐☐☐☐☐☐ €
- Sonstiges, ☐☐☐☐☐☐☐ €

und zwar:

(bitte eintragen)

10

48. Wenn Sie einmal zurückdenken, wie Sie und Ihr(e) Partner(in) gemeinsam im Durchschnitt des Jahres 2006 mit Ihren Einkünften ausgekommen sind: Was von dem Folgenden trifft am besten auf Sie zu?

- Am Monatsende blieb immer reichlich Geld übrig ☐ ➡ *Frage **50***
- Am Monatsende blieb oft etwas Geld übrig ☐
- Es blieb nur etwas übrig, wenn zusätzlich einmalige Einkünfte hinzukamen ☐
- Am Monatsende hat es öfter nicht gereicht ☐
- Am Monatsende hat das Geld nie gereicht ☐

49. Wenn es bei Ihnen einmal finanziell nicht ausgereicht hat, haben Sie oder Ihr(e) Partner(in) dann…

Mehrfachnennungen möglich.

- Das Konto bei der Bank überzogen, d. h. einen Dispositionskredit genutzt ☐
- Auf das Ersparte zurückgegriffen ☐
- Einen Kredit bei der Bank aufgenommen ☐
- Von Freunden oder Verwandten etwas geborgt ☐
- Oder wie sind Sie sonst über die Runden gekommen ☐

und zwar: _____

(bitte eintragen)

50. Wurde Ihnen bzw. Ihrem Partner / Ihrer Partnerin in den vergangenen 5 Jahren schon einmal ein Kreditwunsch bzw. Kreditantrag abgelehnt oder nicht in voller Höhe gewährt?

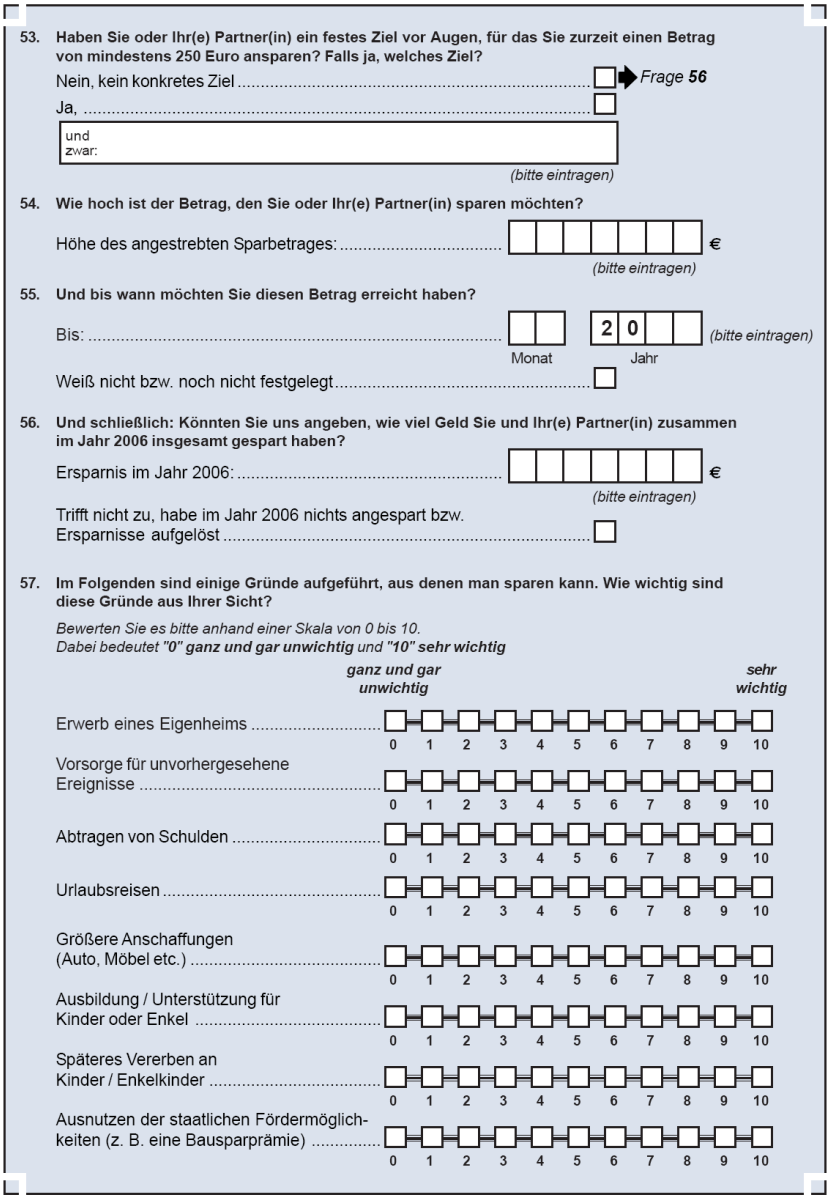
- Ja, es wurde schon ein Kreditwunsch/-antrag in voller Höhe abgelehnt ☐
- Ja, es wurde nur ein kleinerer Kredit als beantragt gewährt ☐
- Nein, es wurde noch kein Kreditwunsch/-antrag abgelehnt ☐
- Entfällt, ich habe noch nie nach einem Kredit gefragt. ☐

51. Haben Sie bzw. Ihr(e) Partner(in) in den vergangenen 5 Jahren schon einmal einen Kredit <u>nicht</u> beantragt, weil Sie glaubten, dass er abgelehnt werden würde?

Ja ☐ Nein ☐

52. Welcher der Sätze trifft am besten auf das persönliche Sparverhalten von Ihnen und von Ihrem Partner / Ihrer Partnerin zu?

- Ich / wir lege(n) regelmäßig einen festen Betrag an, etwa auf einem Sparbuch, einem Sparvertrag, in Aktien oder einer Lebensversicherung etc. ☐
- Ich / wir lege(n) jeden Monat etwas zurück, die Höhe bestimme(n) ich / wir je nach der finanziellen Situation ☐
- Ich / wir lege(n) etwas zur Seite, wenn etwas zum Sparen übrig bleibt ☐
- Ich / wir spare(n) nicht, da kein finanzieller Spielraum vorhanden ist ☐ ➡ *Frage **57***
- Ich will bzw. wir wollen nicht sparen, sondern jetzt das Leben genießen ☐ ➡ *Frage **57***



53. **Haben Sie oder Ihr(e) Partner(in) ein festes Ziel vor Augen, für das Sie zurzeit einen Betrag von mindestens 250 Euro ansparen? Falls ja, welches Ziel?**

Nein, kein konkretes Ziel ☐ ➡ *Frage **56***

Ja, ☐

und zwar: _____ *(bitte eintragen)*

54. **Wie hoch ist der Betrag, den Sie oder Ihr(e) Partner(in) sparen möchten?**

Höhe des angestrebten Sparbetrages: ☐☐☐☐☐☐☐ € *(bitte eintragen)*

55. **Und bis wann möchten Sie diesen Betrag erreicht haben?**

Bis: ☐☐ (Monat) 2 0 ☐☐ (Jahr) *(bitte eintragen)*

Weiß nicht bzw. noch nicht festgelegt ☐

56. **Und schließlich: Könnten Sie uns angeben, wie viel Geld Sie und Ihr(e) Partner(in) zusammen im Jahr 2006 insgesamt gespart haben?**

Ersparnis im Jahr 2006: ☐☐☐☐☐☐☐ € *(bitte eintragen)*

Trifft nicht zu, habe im Jahr 2006 nichts angespart bzw. Ersparnisse aufgelöst ☐

57. **Im Folgenden sind einige Gründe aufgeführt, aus denen man sparen kann. Wie wichtig sind diese Gründe aus Ihrer Sicht?**

Bewerten Sie es bitte anhand einer Skala von 0 bis 10.
*Dabei bedeutet **"0" ganz und gar unwichtig** und **"10" sehr wichtig***

	ganz und gar unwichtig										sehr wichtig
Erwerb eines Eigenheims	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5	☐ 6	☐ 7	☐ 8	☐ 9	☐ 10
Vorsorge für unvorhergesehene Ereignisse	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5	☐ 6	☐ 7	☐ 8	☐ 9	☐ 10
Abtragen von Schulden	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5	☐ 6	☐ 7	☐ 8	☐ 9	☐ 10
Urlaubsreisen	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5	☐ 6	☐ 7	☐ 8	☐ 9	☐ 10
Größere Anschaffungen (Auto, Möbel etc.)	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5	☐ 6	☐ 7	☐ 8	☐ 9	☐ 10
Ausbildung / Unterstützung für Kinder oder Enkel	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5	☐ 6	☐ 7	☐ 8	☐ 9	☐ 10
Späteres Vererben an Kinder / Enkelkinder	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5	☐ 6	☐ 7	☐ 8	☐ 9	☐ 10
Ausnutzen der staatlichen Fördermöglichkeiten (z. B. eine Bausparprämie)	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5	☐ 6	☐ 7	☐ 8	☐ 9	☐ 10

12

58. Wie viel Ersparnis benötigen Sie und Ihre Familie zur Vorsorge vor unvorhergesehenen Ereignissen?

Höhe der Vorsorgeersparnis: ..... € *(bitte eintragen)*

59. Führen Sie oder Ihr(e) Partner(in) über Einkünfte und Ausgaben Ihres Haushalts regelmäßig Buch?

Ja ..... ☐ Nein ..... ☐

60. Führen oder führten Ihre Eltern über Einkünfte und Ausgaben ihres Haushalts regelmäßig Buch?

Ja ..... ☐ Nein ..... ☐

61. Besitzt Ihr Konto einen Dispositionsrahmen?

Ja ..... ☐ ➡ *Frage **63***

Nein ..... ☐

62. Wie häufig überziehen Sie Ihr Giro-Konto?

Falls Sie und Ihr(e) Partner(in) ein gemeinsames Konto haben:
Wie oft ist dieses Konto überzogen?

Nie ..... ☐ ➡ *Frage **65***

Selten ..... ☐ ➡ *Frage **65***

Häufig ..... ☐ ➡ *Frage **67***

63. Wie hoch ist der Dispositionsrahmen?

Bei mehreren: Bitte geben Sie die Summe an.

Höhe: ..... € *(bitte eintragen)*

64. Wie häufig nutzen Sie den Dispositionsrahmen?

Nie ..... ☐

1 bis 3 Mal pro Jahr ..... ☐

4 bis 6 Mal pro Jahr ..... ☐

Öfter oder dauernd in Anspruch genommen ..... ☐

65. Achten Sie darauf, dass, wenn immer es geht, ein bestimmtes Mindestguthaben auf diesem Girokonto steht, d. h. schränken Sie Ihren Konsum lieber ein oder bauen Sie lieber andere Ersparnisse ab, als diesen Mindestbetrag zu unterschreiten?

Ja ..... ☐

Nein ..... ☐ ➡ *Frage **67***

66. Wie hoch ist dieses Mindestguthaben ungefähr?

Angestrebtes Mindestguthaben auf Girokonto: ..... € *(bitte eintragen)*

67. Wie zutreffend sind folgende Aussagen für Sie?

Bewerten Sie es bitte anhand einer Skala von 0 bis 10.
*Dabei bedeutet **"0" völlig unzutreffend** und **"10" völlig zutreffend***

	völlig unzutreffend										*völlig zutreffend*
Ich habe als Kind regelmäßig Taschengeld erhalten	0	1	2	3	4	5	6	7	8	9	10
Ich habe mein Taschengeld sofort ausgegeben	0	1	2	3	4	5	6	7	8	9	10
Ich war als Kind bereit, auch bei riskanten Spielen mitzumachen	0	1	2	3	4	5	6	7	8	9	10
Meine Mutter ist / war ein abenteuerlustiger Mensch	0	1	2	3	4	5	6	7	8	9	10
Meine Mutter hat sehr genau die Zukunft geplant	0	1	2	3	4	5	6	7	8	9	10
Mein Vater ist / war ein abenteuerlustiger Mensch	0	1	2	3	4	5	6	7	8	9	10
Mein Vater hat sehr genau die Zukunft geplant	0	1	2	3	4	5	6	7	8	9	10

68. Angenommen Sie haben 100 Euro Guthaben auf Ihrem Sparkonto. Dieses Guthaben wird mit 2% pro Jahr verzinst, und Sie lassen es 5 Jahre auf diesem Konto.
Was meinen Sie: Wie viel Guthaben weist Ihr Sparkonto nach 5 Jahren auf?

- Weniger als 102 € ☐
- Genau 102 € ☐
- Mehr als 102 € ☐

69. Angenommen, die Verzinsung Ihres Sparkontos beträgt 1% pro Jahr und die Inflationsrate beträgt 2% pro Jahr. Was glauben Sie: Werden Sie nach einem Jahr mit dem Guthaben des Sparkontos genauso viel, mehr oder weniger als heute kaufen können?

- Genauso viel ☐
- Mehr ☐
- Weniger ☐

70. Ist die folgende Aussage richtig oder falsch? „Die Anlage in einer einzelnen Aktie bietet in der Regel einen sichereren Gewinn als die Anlage in einem Aktienfonds."

- Richtig ☐
- Falsch ☐
- Weiß nicht ☐

Einkommen

71. Nachfolgend sind einige Einkommensarten aufgeführt. Bitte geben Sie uns an, ob Sie persönlich und ob Ihr(e) Partner(in) im Dezember 2006 ein solches Einkommen bezogen haben.

Geben Sie es bitte auch an, wenn Sie zurzeit ein solches Einkommen nicht mehr beziehen.

	Sie selbst	Ihr Partner/ Ihre Partnerin
Einkommen aus Lohn oder Gehalt, auch Nebentätigkeiten	☐	☐
Einkommen aus selbstständiger Tätigkeit	☐	☐
Arbeitslosenunterstützung, sonstige Leistungen vom Arbeitsamt	☐	☐
Kindergeld, Erziehungsgeld	☐	☐
Einkommen aus Vermietung und Verpachtung	☐	☐
Unterstützung durch Eltern oder Kinder	☐	☐
Zinserträge aus Sparguthaben oder Wertpapieren	☐	☐
BAföG oder andere Ausbildungsförderung	☐	☐
Wohngeld	☐	☐
Sozialhilfe	☐	☐
Alterseinkommen aus eigenen Ansprüchen oder als Witwe / Witwer, und zwar:		
Rente der gesetzlichen Rentenversicherung, auch Kindererziehungsrente	☐	☐
Zusatzversorgung im öffentlichen Dienst	☐	☐
Betriebsrente, d.h. Zusatzversorgung der Privatwirtschaft	☐	☐
Beamtenpension	☐	☐
Landwirtschaftliche Altersrente	☐	☐
Berufsständische Versorgung für verkammerte Freiberufler, wie z.B. Ärzte, Apotheker und Rechtsanwälte	☐	☐
Laufende Rente aus einer Lebensversicherung (keine einmalige Kapitalauszahlung)	☐	☐
Rente aus einer privaten Rentenversicherung	☐	☐
Sonstige Rente	☐	☐
Nein, nichts davon, kein eigenes Einkommen	☐	☐

72. Wenn Sie nun einmal alles zusammenzählen:
Wie hoch ist das Nettoeinkommen, das Sie und Ihr Partner/Ihre Partnerin nach Abzug der Steuern und Beiträge zur Sozialversicherung aus allen diesen Quellen im Jahr 2006 pro Monat durchschnittlich bezogen haben?

(bitte eintragen)

Durchschnittliches Nettoeinkommen pro Monat im Jahr 2006: ☐☐☐☐☐☐☐ €

73. **Sollten Sie bei Frage 72 keine genaue Angabe machen können, so möchten wir Sie bitten uns näherungsweise die Größenklasse zu nennen, in die das gesamte monatliche Nettoeinkommen von Ihnen und Ihrem Partner/Ihrer Partnerin im Durchschnitt des Jahres 2006 fällt.**

Welche der folgenden Klassen in dieser Liste trifft zu?

unter 500 €	☐	3.500 bis unter 4.000 €	☐
500 bis unter 1.000 €	☐	4.000 bis unter 4.500 €	☐
1.000 bis unter 1.500 €	☐	4.500 bis unter 5.000 €	☐
1.500 bis unter 2.000 €	☐	5.000 bis unter 7.500 €	☐
2.000 bis unter 2.500 €	☐	7.500 bis unter 10.000 €	☐
2.500 bis unter 3.000 €	☐	10.000 bis unter 15.000 €	☐
3.000 bis unter 3.500 €	☐	15.000 € und mehr	☐

74. **Wie viel haben Sie persönlich zu diesem gemeinsamen monatlichen Nettoeinkommen etwa beigetragen?**

Bitte geben Sie einen Wert zwischen 0% und 100% an.

Persönlicher Anteil am gemeinsamen monatlichen Nettoeinkommen im Jahr 2006: ☐☐☐ %
(bitte eintragen)

Trifft nicht zu, habe keinen Partner / keine Partnerin ☐

75. **Leisten Sie oder Ihr(e) Partner(in) regelmäßig Zahlungen von mehr als 25 Euro pro Monat an Personen in anderen Haushalten, z. B. Unterhalts- oder Unterstützungszahlungen?**

Ja ☐ Nein ☐ ➡ *Frage **77***

76. **Wie hoch waren diese Zahlungen im Jahr 2006 durchschnittlich pro Monat?**

Höhe der Zahlungen pro Monat im Jahr 2006: ☐☐☐☐☐ €/Monat
(bitte eintragen)

77. **Erhalten Sie oder Ihr(e) Partner(in) regelmäßig Zahlungen von mehr als 25 Euro pro Monat von Personen in anderen Haushalten, z. B. Unterhalts- oder Unterstützungszahlungen?**

Ja ☐ Nein ☐ ➡ *Frage **79***

78. **Wie hoch waren diese Zahlungen im Jahr 2006 durchschnittlich pro Monat?**

Höhe der Zahlungen pro Monat im Jahr 2006: ☐☐☐☐☐ €/Monat
(bitte eintragen)

79. **Erhalten Sie oder Ihr(e) Partner(in) einmalig oder gelegentlich Zahlungen von mehr als 25 Euro von Personen in anderen Haushalten, z. B. als Geldgeschenk von Ihren Eltern?**

Ja ☐ Nein ☐ ➡ *Frage **81***

80. **Wie hoch waren diese Zahlungen im gesamten Jahr 2006 in etwa?**

Höhe der Zahlungen im Jahr 2006: ☐☐☐☐☐ €
(bitte eintragen)

81. Ist Ihre Einkommenssituation im Vergleich zur Situation vor 5 Jahren ...

- deutlich besser ☐
- etwas besser ☐
- in etwa gleich ☐
- etwas schlechter ☐
- deutlich schlechter ☐

82. Hat Ihr persönliches Einkommen während der letzten 5 Jahre ...

- deutlich geschwankt ☐
- etwas geschwankt ☐
- gar nicht geschwankt ☐

Altersvorsorge

Im Folgenden interessiert uns, ob und wie Sie und ggf. Ihr(e) Partner (in) für Ihr Alter vorgesorgt haben.

Diese Frage zur Altersvorsorge bitte nur beantworten, wenn Sie nicht verheiratet sind und nicht mit einem Partner / einer Partnerin zusammen leben. Ansonsten fahren Sie mit Frage 84 fort.

83. Welche Situation trifft auf Sie zu?

Ich bin bereits im Ruhestand oder Vorruhestand ☐ → *Frage **92***

und zwar seit: ☐☐☐☐ *(bitte eintragen)*

Ich bin noch nicht im Ruhestand, erhalte noch kein Alterseinkommen ☐ → *Frage **85***

Diese Frage zur Altersvorsorge bitte nur beantworten, sofern Sie verheiratet sind bzw. mit einem Partner / einer Partnerin zusammen leben.

84. Welche Situation trifft auf Sie zu?

Ich und mein(e) Partner(in) sind beide bereits im Ruhestand und erhalten bereits unsere Alterseinkommen ☐

und zwar seit (Befragter): ☐☐☐☐ *(bitte eintragen)* → *Frage **92***

und zwar seit (Partner): ☐☐☐☐ *(bitte eintragen)*

Ich erhalte bereits meine Rente / Pension, mein(e) Partner(in) wird sie erst später erhalten ☐ → *Frage **86***

und zwar seit (Befragter): ☐☐☐☐ *(bitte eintragen)*

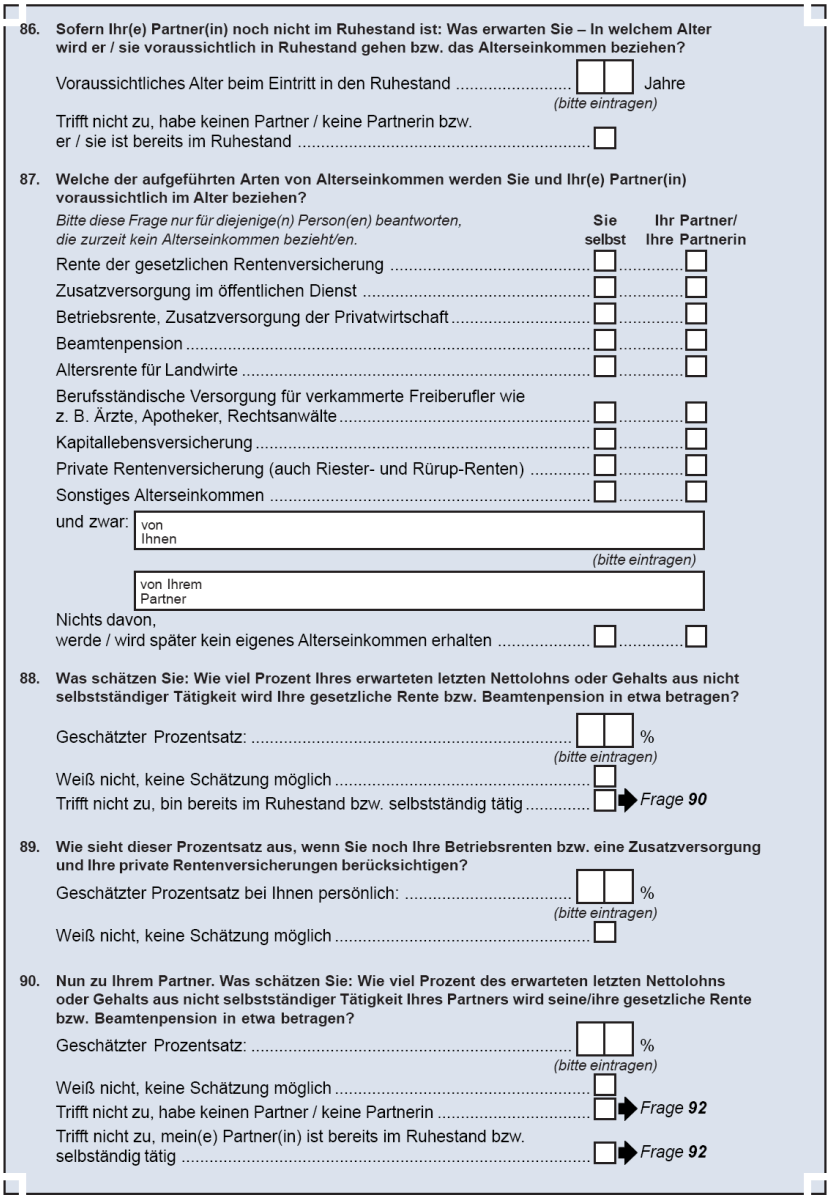
Ich erhalte meine Rente / Pension noch nicht, mein(e) Partner(in) erhält sie bereits ☐

und zwar seit (Partner): ☐☐☐☐ *(bitte eintragen)*

Weder ich noch mein(e) Partner(in) sind im Ruhestand bzw. erhalten Alterseinkommen ☐

85. Was erwarten Sie – In welchem Alter werden Sie voraussichtlich in Ruhestand gehen bzw. das Alterseinkommen beziehen?

Voraussichtliches Alter beim Eintritt in den Ruhestand ☐☐ Jahre *(bitte eintragen)*



86. **Sofern Ihr(e) Partner(in) noch nicht im Ruhestand ist: Was erwarten Sie – In welchem Alter wird er / sie voraussichtlich in Ruhestand gehen bzw. das Alterseinkommen beziehen?**

Voraussichtliches Alter beim Eintritt in den Ruhestand ..... ☐☐ Jahre
(bitte eintragen)

Trifft nicht zu, habe keinen Partner / keine Partnerin bzw. er / sie ist bereits im Ruhestand ..... ☐

87. **Welche der aufgeführten Arten von Alterseinkommen werden Sie und Ihr(e) Partner(in) voraussichtlich im Alter beziehen?**

Bitte diese Frage nur für diejenige(n) Person(en) beantworten, die zurzeit kein Alterseinkommen bezieht/en.

	Sie selbst	**Ihr Partner/ Ihre Partnerin**
Rente der gesetzlichen Rentenversicherung	☐	☐
Zusatzversorgung im öffentlichen Dienst	☐	☐
Betriebsrente, Zusatzversorgung der Privatwirtschaft	☐	☐
Beamtenpension	☐	☐
Altersrente für Landwirte	☐	☐
Berufsständische Versorgung für verkammerte Freiberufler wie z. B. Ärzte, Apotheker, Rechtsanwälte	☐	☐
Kapitallebensversicherung	☐	☐
Private Rentenversicherung (auch Riester- und Rürup-Renten)	☐	☐
Sonstiges Alterseinkommen	☐	☐

und zwar: von Ihnen
(bitte eintragen)
von Ihrem Partner

Nichts davon, werde / wird später kein eigenes Alterseinkommen erhalten ..... ☐ ☐

88. **Was schätzen Sie: Wie viel Prozent Ihres erwarteten letzten Nettolohns oder Gehalts aus nicht selbstständiger Tätigkeit wird Ihre gesetzliche Rente bzw. Beamtenpension in etwa betragen?**

Geschätzter Prozentsatz: ..... ☐☐ %
(bitte eintragen)

Weiß nicht, keine Schätzung möglich ..... ☐
Trifft nicht zu, bin bereits im Ruhestand bzw. selbstständig tätig ..... ☐ ➡ *Frage **90***

89. **Wie sieht dieser Prozentsatz aus, wenn Sie noch Ihre Betriebsrenten bzw. eine Zusatzversorgung und Ihre private Rentenversicherungen berücksichtigen?**

Geschätzter Prozentsatz bei Ihnen persönlich: ..... ☐☐ %
(bitte eintragen)

Weiß nicht, keine Schätzung möglich ..... ☐

90. **Nun zu Ihrem Partner. Was schätzen Sie: Wie viel Prozent des erwarteten letzten Nettolohns oder Gehalts aus nicht selbstständiger Tätigkeit Ihres Partners wird seine/ihre gesetzliche Rente bzw. Beamtenpension in etwa betragen?**

Geschätzter Prozentsatz: ..... ☐☐ %
(bitte eintragen)

Weiß nicht, keine Schätzung möglich ..... ☐
Trifft nicht zu, habe keinen Partner / keine Partnerin ..... ☐ ➡ *Frage **92***
Trifft nicht zu, mein(e) Partner(in) ist bereits im Ruhestand bzw. selbständig tätig ..... ☐ ➡ *Frage **92***

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91. Wie sieht dieser Prozentsatz bei Ihrem Partner aus, wenn Sie noch seine/ihre Betriebsrenten bzw. Zusatzversorgung und seine/ihre private Rentenversicherungen berücksichtigen?

Geschätzter Prozentsatz bei Ihrem Partner: ☐☐ %
(bitte eintragen)

Weiß nicht, keine Schätzung möglich ☐
Trifft nicht zu, habe keinen Partner / keine Partnerin ☐

Wohneigentum

92. Ist eine Person Ihres Haushalts Eigentümer der Wohnung, in der Sie jetzt leben?

Ja ☐ Nein ☐ ➡ *Frage **95***

93. Haben Sie bzw. Ihr(e) Partner(in) diese Wohnung bzw. dieses Haus ...

Neu gekauft, gebaut ☐
Vom Vorbesitzer gekauft ☐
Geerbt ☐
Als Schenkung erhalten ☐

94. Wie hoch schätzen Sie den Verkaufswert dieser Wohnung bzw. dieses Hauses, einschließlich des Grundstücks, ein?

Eventuelle noch auf dem Haus liegende Hypotheken lassen Sie bitte außer Betracht.

Verkaufswert der Wohnung / des Hauses: ☐☐☐☐☐☐☐ € ➡ Frage **96**
(bitte eintragen)

95. Wie hoch ist die monatliche Kaltmiete der Wohnung Ihres Haushalts?

Monatliche Kaltmiete: ☐☐☐☐☐ €
(bitte eintragen)

96. Besitzen Sie oder Ihr(e) Partner(in) sonstige Wohnungen, Gebäude oder Grundstücke im Wert von über 2.500 Euro?

Ja ☐ Nein ☐ ➡ *Frage **98***

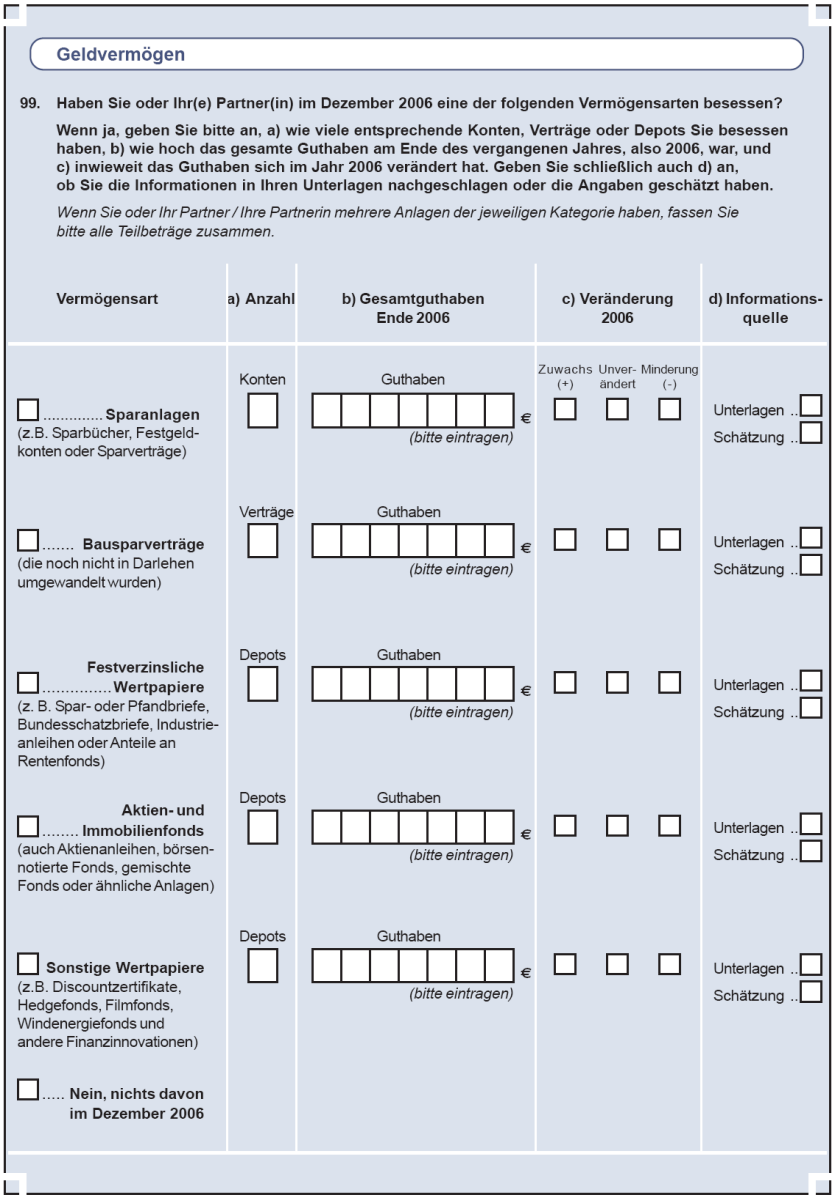
97. Wie hoch schätzen Sie den Verkaufswert der übrigen Wohnungen, Gebäude oder Grundstücke, die Sie oder Ihr(e) Partner(in) besitzen?

Bei mehreren Eigentümern geben Sie bitte nur den auf Sie bzw. Ihre(e) Partner(in) entfallenden Betrag an.

Verkaufswert der übrigen Immobilien: ☐☐☐☐☐☐☐ €
(bitte eintragen)

98. Beabsichtigen Sie oder Ihr(e) Partner(in) Wohnungen, Grundstücke oder Gebäude zu erwerben? Falls ja, wann?

Nein ☐
Ja, in den nächsten zwei Jahren ☐
Ja, in den nächsten drei bis fünf Jahren ☐
Ja, in sechs oder mehr Jahren ☐



Geldvermögen

99. Haben Sie oder Ihr(e) Partner(in) im Dezember 2006 eine der folgenden Vermögensarten besessen?

Wenn ja, geben Sie bitte an, a) wie viele entsprechende Konten, Verträge oder Depots Sie besessen haben, b) wie hoch das gesamte Guthaben am Ende des vergangenen Jahres, also 2006, war, und c) inwieweit das Guthaben sich im Jahr 2006 verändert hat. Geben Sie schließlich auch d) an, ob Sie die Informationen in Ihren Unterlagen nachgeschlagen oder die Angaben geschätzt haben.

Wenn Sie oder Ihr Partner / Ihre Partnerin mehrere Anlagen der jeweiligen Kategorie haben, fassen Sie bitte alle Teilbeträge zusammen.

Vermögensart	a) Anzahl	b) Gesamtguthaben Ende 2006	c) Veränderung 2006	d) Informationsquelle
☐ ..... **Sparanlagen** (z.B. Sparbücher, Festgeldkonten oder Sparverträge)	Konten ☐	Guthaben ☐☐☐☐☐☐☐ € *(bitte eintragen)*	Zuwachs (+) ☐ Unverändert ☐ Minderung (-) ☐	Unterlagen ☐ Schätzung ☐
☐ ..... **Bausparverträge** (die noch nicht in Darlehen umgewandelt wurden)	Verträge ☐	Guthaben ☐☐☐☐☐☐☐ € *(bitte eintragen)*	☐ ☐ ☐	Unterlagen ☐ Schätzung ☐
☐ ..... **Festverzinsliche Wertpapiere** (z. B. Spar- oder Pfandbriefe, Bundesschatzbriefe, Industrieanleihen oder Anteile an Rentenfonds)	Depots ☐	Guthaben ☐☐☐☐☐☐☐ € *(bitte eintragen)*	☐ ☐ ☐	Unterlagen ☐ Schätzung ☐
☐ ..... **Aktien- und Immobilienfonds** (auch Aktienanleihen, börsennotierte Fonds, gemischte Fonds oder ähnliche Anlagen)	Depots ☐	Guthaben ☐☐☐☐☐☐☐ € *(bitte eintragen)*	☐ ☐ ☐	Unterlagen ☐ Schätzung ☐
☐ **Sonstige Wertpapiere** (z.B. Discountzertifikate, Hedgefonds, Filmfonds, Windenergiefonds und andere Finanzinnovationen)	Depots ☐	Guthaben ☐☐☐☐☐☐☐ € *(bitte eintragen)*	☐ ☐ ☐	Unterlagen ☐ Schätzung ☐
☐ ..... **Nein, nichts davon im Dezember 2006**				

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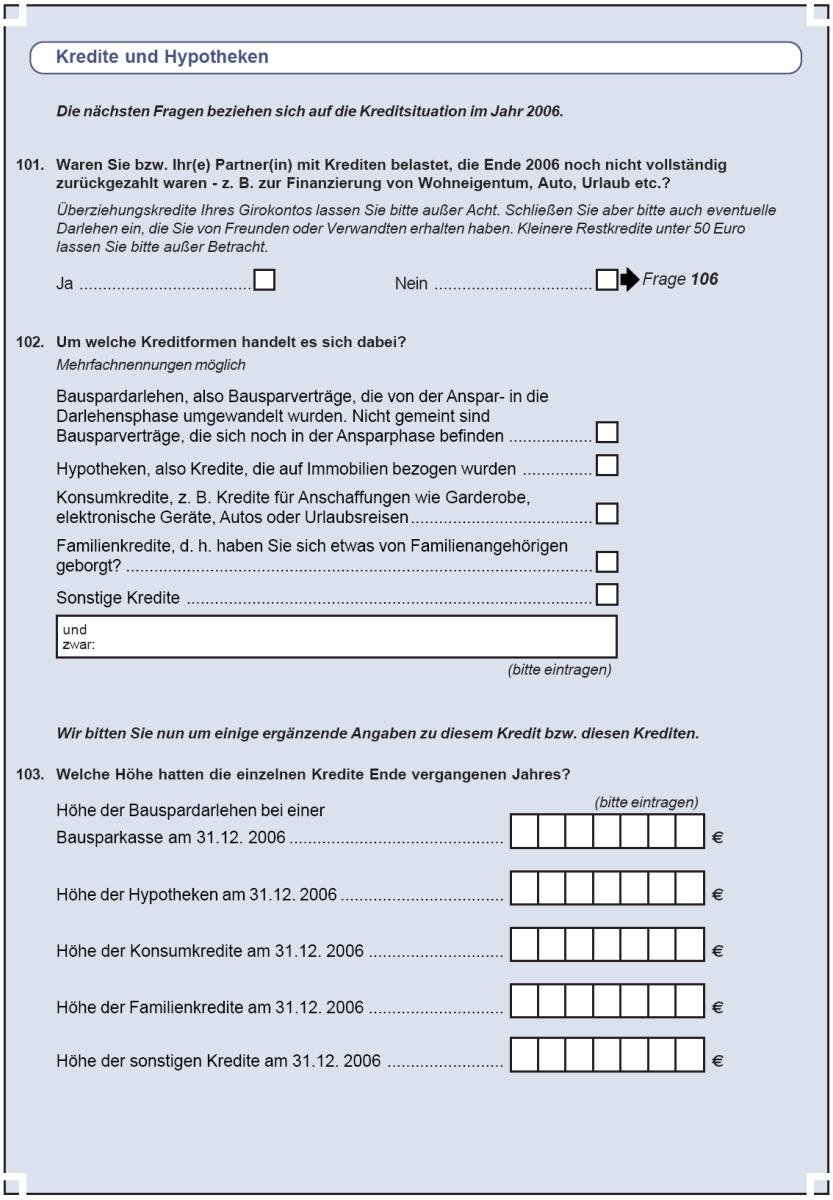
Betriebliche und private Altersvorsorge

100. Haben Sie oder Ihr(e) Partner(in) im Dezember 2006 einen der folgenden privaten oder betrieblichen Altersvorsorgeverträge besessen?
Wenn ja, geben Sie bitte an, a) wie viele entsprechende Verträge Sie besessen haben, b) wie hoch das Guthaben am Ende des vergangenen Jahres, also 2006, war und c) wie hoch Ihre eigenen monatlichen Beiträge und gegebenenfalls die Beiträge Ihres Arbeitgebers waren. Geben Sie schließlich auch d) an, ob Sie die Informationen in Ihren Unterlagen nachgeschlagen oder die Angaben geschätzt haben.
Wenn Sie oder Ihr Partner / Ihre Partnerin mehrere Anlagen der jeweiligen Kategorie haben, fassen Sie bitte alle Teilbeträge bzw. -beiträge zusammen.

Vorsorgeart	a) Anzahl	b) Gesamtes Guthaben Ende 2006	c) Monatliche Beiträge 2006	d) Informationsquelle
☐ ..... **Private Lebensversicherungen** (z.B. klassische und Fondsgebundene Kapitallebensversicherungen, nicht reine Risikolebensversicherungen oder Direktversicherungen über den Arbeitgeber)	Verträge ☐	Guthaben ☐☐☐☐☐☐☐ € *(bitte eintragen)*	Eigene Beiträge ☐☐☐☐☐ €/Monat *(bitte eintragen)*	Unterlagen .. ☐ Schätzung .. ☐
☐ ..... **Betriebliche Lebensversicherungen** (z. B. Direktversicherungen)	Verträge ☐	Guthaben ☐☐☐☐☐☐☐ € *(bitte eintragen)*	Eigene Beiträge ☐☐☐☐☐ €/Monat Arbeitgeberbeiträge ☐☐☐☐☐ €/Monat *(bitte eintragen)*	Unterlagen .. ☐ Schätzung .. ☐
☐ ..... **Sonstige betriebliche Altersvorsorge** (z. B. Betriebsrenten aus Pensions- oder Unterstützungskassen und betriebliche Direktzusagen sowie Zusatzversorgung im öffentlichen Dienst; auch aus früheren Beschäftigungsverhältnissen)	Verträge ☐	Guthaben ☐☐☐☐☐☐☐ € *(bitte eintragen)*	Eigene Beiträge ☐☐☐☐☐ €/Monat Arbeitgeberbeiträge ☐☐☐☐☐ €/Monat *(bitte eintragen)*	Unterlagen .. ☐ Schätzung .. ☐
☐ ..... **Staatlich geförderte private Altersvorsorge („Riester-Rente")** (staatlich geförderte und zertifizierte Sparanlagen, auch „Rürup-" bzw. Basisrenten)	Verträge ☐	Guthaben ☐☐☐☐☐☐☐ € *(bitte eintragen)*	Eigene Beiträge ☐☐☐☐☐ €/Monat *(bitte eintragen)*	Unterlagen .. ☐ Schätzung .. ☐
☐ ..... **Private Rentenversicherungen** (z.B. private Rentenversicherungsverträge, die nicht staatlich gefördert werden bzw. abgeschlossen wurden, bevor es solche Fördermöglichkeiten gab)	Verträge ☐	Guthaben ☐☐☐☐☐☐☐ € *(bitte eintragen)*	Eigene Beiträge ☐☐☐☐☐ €/Monat *(bitte eintragen)*	Unterlagen .. ☐ Schätzung .. ☐
☐ .... **Nein, nichts davon im Dezember 2006**				



Kredite und Hypotheken

Die nächsten Fragen beziehen sich auf die Kreditsituation im Jahr 2006.

101. Waren Sie bzw. Ihr(e) Partner(in) mit Krediten belastet, die Ende 2006 noch nicht vollständig zurückgezahlt waren - z. B. zur Finanzierung von Wohneigentum, Auto, Urlaub etc.?

Überziehungskredite Ihres Girokontos lassen Sie bitte außer Acht. Schließen Sie aber bitte auch eventuelle Darlehen ein, die Sie von Freunden oder Verwandten erhalten haben. Kleinere Restkredite unter 50 Euro lassen Sie bitte außer Betracht.

Ja ☐ Nein ☐ ➡ *Frage **106***

102. Um welche Kreditformen handelt es sich dabei?

Mehrfachnennungen möglich

Bauspardarlehen, also Bausparverträge, die von der Anspar- in die Darlehensphase umgewandelt wurden. Nicht gemeint sind Bausparverträge, die sich noch in der Ansparphase befinden ☐

Hypotheken, also Kredite, die auf Immobilien bezogen wurden ☐

Konsumkredite, z. B. Kredite für Anschaffungen wie Garderobe, elektronische Geräte, Autos oder Urlaubsreisen ☐

Familienkredite, d. h. haben Sie sich etwas von Familienangehörigen geborgt? ☐

Sonstige Kredite ☐

und zwar: *(bitte eintragen)*

Wir bitten Sie nun um einige ergänzende Angaben zu diesem Kredit bzw. diesen Krediten.

103. Welche Höhe hatten die einzelnen Kredite Ende vergangenen Jahres?

(bitte eintragen)

Höhe der Bauspardarlehen bei einer Bausparkasse am 31.12. 2006 ☐☐☐☐☐☐☐ €

Höhe der Hypotheken am 31.12. 2006 ☐☐☐☐☐☐☐ €

Höhe der Konsumkredite am 31.12. 2006 ☐☐☐☐☐☐☐ €

Höhe der Familienkredite am 31.12. 2006 ☐☐☐☐☐☐☐ €

Höhe der sonstigen Kredite am 31.12. 2006 ☐☐☐☐☐☐☐ €

22

104. In welcher Höhe haben Sie bzw. Ihr(e) Partner(in) im Jahr 2006 neue oder zusätzliche Kredite der einzelnen Formen aufgenommen?

(bitte eintragen)

Bauspardarlehen ..... | | | | | | | | €

Im Jahr 2006 keine Bauspardarlehen neu aufgenommen ..... ☐

(bitte eintragen)

Hypotheken ..... | | | | | | | | €

Im Jahr 2006 keine Hypotheken neu aufgenommen ..... ☐

(bitte eintragen)

Konsumkredite ..... | | | | | | | | €

Im Jahr 2006 keine Konsumkredite neu aufgenommen ..... ☐

(bitte eintragen)

Familienkredite ..... | | | | | | | | €

Im Jahr 2006 keine Familienkredite neu aufgenommen ..... ☐

(bitte eintragen)

Sonstige Kredite ..... | | | | | | | | €

Im Jahr 2006 keine sonstigen Kredite neu aufgenommen ..... ☐

105. In welcher Höhe haben Sie bzw. Ihr(e) Partner(in) im Jahr 2006 Zahlungen zur Tilgung dieser Kredite geleistet? Bitte zählen Sie die Zinszahlungen nicht dazu.

(bitte eintragen)

Bauspardarlehen ..... | | | | | | | | €

Keine Tilgung von Bauspardarlehen im Jahr 2006 ..... ☐

(bitte eintragen)

Hypotheken ..... | | | | | | | | €

Keine Tilgung von Hypotheken im Jahr 2006 ..... ☐

(bitte eintragen)

Konsumkredite ..... | | | | | | | | €

Keine Tilgung von Konsumkrediten im Jahr 2006 ..... ☐

(bitte eintragen)

Familienkredite ..... | | | | | | | | €

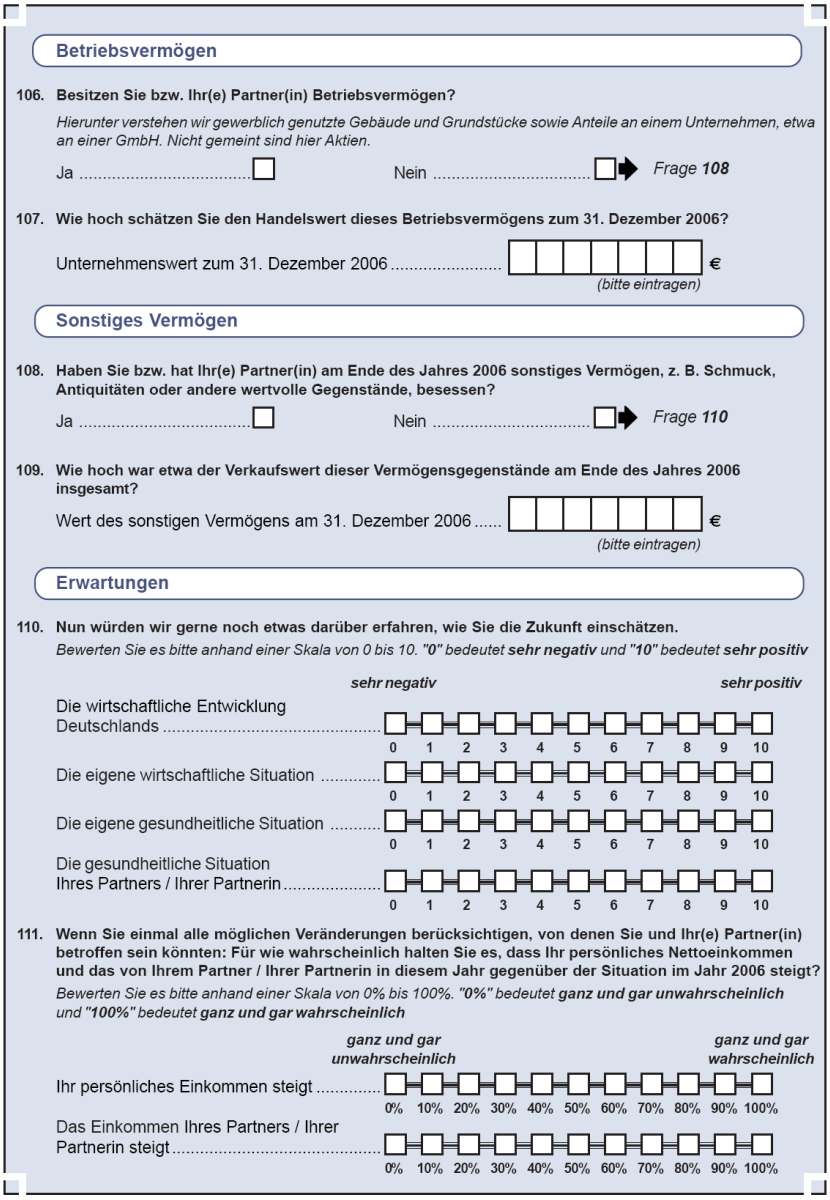
Keine Tilgung von Familienkrediten im Jahr 2006 ..... ☐

(bitte eintragen)

Sonstige Kredite ..... | | | | | | | | €

Keine Tilgung von sonstigen Krediten im Jahr 2006 ..... ☐

Bitte überprüfen Sie noch einmal, ob Sie die Fragen 103-105 beantwortet haben.



Betriebsvermögen

106. Besitzen Sie bzw. Ihr(e) Partner(in) Betriebsvermögen?

Hierunter verstehen wir gewerblich genutzte Gebäude und Grundstücke sowie Anteile an einem Unternehmen, etwa an einer GmbH. Nicht gemeint sind hier Aktien.

Ja ☐ Nein ☐ → *Frage **108***

107. Wie hoch schätzen Sie den Handelswert dieses Betriebsvermögens zum 31. Dezember 2006?

Unternehmenswert zum 31. Dezember 2006 ☐☐☐☐☐☐☐ €
(bitte eintragen)

Sonstiges Vermögen

108. Haben Sie bzw. hat Ihr(e) Partner(in) am Ende des Jahres 2006 sonstiges Vermögen, z. B. Schmuck, Antiquitäten oder andere wertvolle Gegenstände, besessen?

Ja ☐ Nein ☐ → *Frage **110***

109. Wie hoch war etwa der Verkaufswert dieser Vermögensgegenstände am Ende des Jahres 2006 insgesamt?

Wert des sonstigen Vermögens am 31. Dezember 2006 ☐☐☐☐☐☐☐ €
(bitte eintragen)

Erwartungen

110. Nun würden wir gerne noch etwas darüber erfahren, wie Sie die Zukunft einschätzen.

*Bewerten Sie es bitte anhand einer Skala von 0 bis 10. **"0"** bedeutet **sehr negativ** und **"10"** bedeutet **sehr positiv***

	sehr negativ										***sehr positiv***
Die wirtschaftliche Entwicklung Deutschlands	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
	0	1	2	3	4	5	6	7	8	9	10
Die eigene wirtschaftliche Situation	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
	0	1	2	3	4	5	6	7	8	9	10
Die eigene gesundheitliche Situation	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
	0	1	2	3	4	5	6	7	8	9	10
Die gesundheitliche Situation Ihres Partners / Ihrer Partnerin	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
	0	1	2	3	4	5	6	7	8	9	10

111. Wenn Sie einmal alle möglichen Veränderungen berücksichtigen, von denen Sie und Ihr(e) Partner(in) betroffen sein könnten: Für wie wahrscheinlich halten Sie es, dass Ihr persönliches Nettoeinkommen und das von Ihrem Partner / Ihrer Partnerin in diesem Jahr gegenüber der Situation im Jahr 2006 steigt?

*Bewerten Sie es bitte anhand einer Skala von 0% bis 100%. **"0%"** bedeutet **ganz und gar unwahrscheinlich** und **"100%"** bedeutet **ganz und gar wahrscheinlich***

	ganz und gar unwahrscheinlich										***ganz und gar wahrscheinlich***
Ihr persönliches Einkommen steigt	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
	0%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%
Das Einkommen Ihres Partners / Ihrer Partnerin steigt	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
	0%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%

112. Für wie wahrscheinlich halten Sie es, dass Sie in diesem Jahr, d. h. 2007, arbeitslos werden?

Bewerten Sie bitte wieder anhand einer Skala von 0 % bis 100%. "0%" bedeutet ***ganz und gar unwahrscheinlich*** *und "100%" bedeutet* ***ganz und gar wahrscheinlich.***

	ganz und gar unwahrscheinlich										*ganz und gar wahrscheinlich*
Sie selbst	☐ 0%	☐ 10%	☐ 20%	☐ 30%	☐ 40%	☐ 50%	☐ 60%	☐ 70%	☐ 80%	☐ 90%	☐ 100%
Ihr(e) Partner(in)	☐ 0%	☐ 10%	☐ 20%	☐ 30%	☐ 40%	☐ 50%	☐ 60%	☐ 70%	☐ 80%	☐ 90%	☐ 100%

113. Wie wahrscheinlich ist es, dass Sie oder Ihr(e) Partner(in) in den nächsten zwei Jahren eine größere Erbschaft oder Schenkung im Umfang von mehr als einem Monatseinkommen erhalten?

Auch hier können Sie wieder anhand einer Skala von 0% bis 100% bewerten.

	ganz und gar unwahrscheinlich										*ganz und gar wahrscheinlich*
Sie selbst	☐ 0%	☐ 10%	☐ 20%	☐ 30%	☐ 40%	☐ 50%	☐ 60%	☐ 70%	☐ 80%	☐ 90%	☐ 100%
Ihr(e) Partner(in)	☐ 0%	☐ 10%	☐ 20%	☐ 30%	☐ 40%	☐ 50%	☐ 60%	☐ 70%	☐ 80%	☐ 90%	☐ 100%

Bitte die folgende Frage nur beantworten, sofern Ihre Bewertungen bzw. die Ihres Partners / Ihrer Partnerin bei Frage 113 über 0% liegen.

114. Würde diese Erbschaft oder Schenkung Ihre finanzielle Situation...

- Deutlich verbessern ☐
- Geringfügig verbessern ☐
- Auf dem heutigen Niveau belassen ☐

115. Welches Lebensalter, glauben Sie, werden im Durchschnitt Personen Ihres Alters erreichen?

Männer ☐☐☐ Jahre *(bitte eintragen)*

Frauen ☐☐☐ Jahre *(bitte eintragen)*

116. Wenn Sie an Ihre eigene Situation und Ihren Gesundheitszustand denken, wie lange, glauben Sie, werden Sie im Vergleich zu den Personen Ihres Alters und Geschlechts leben?

Kürzer ☐ und zwar um ☐☐ Jahre

Ungefähr so lange wie der Durchschnitt ☐ → *Frage* ***119***

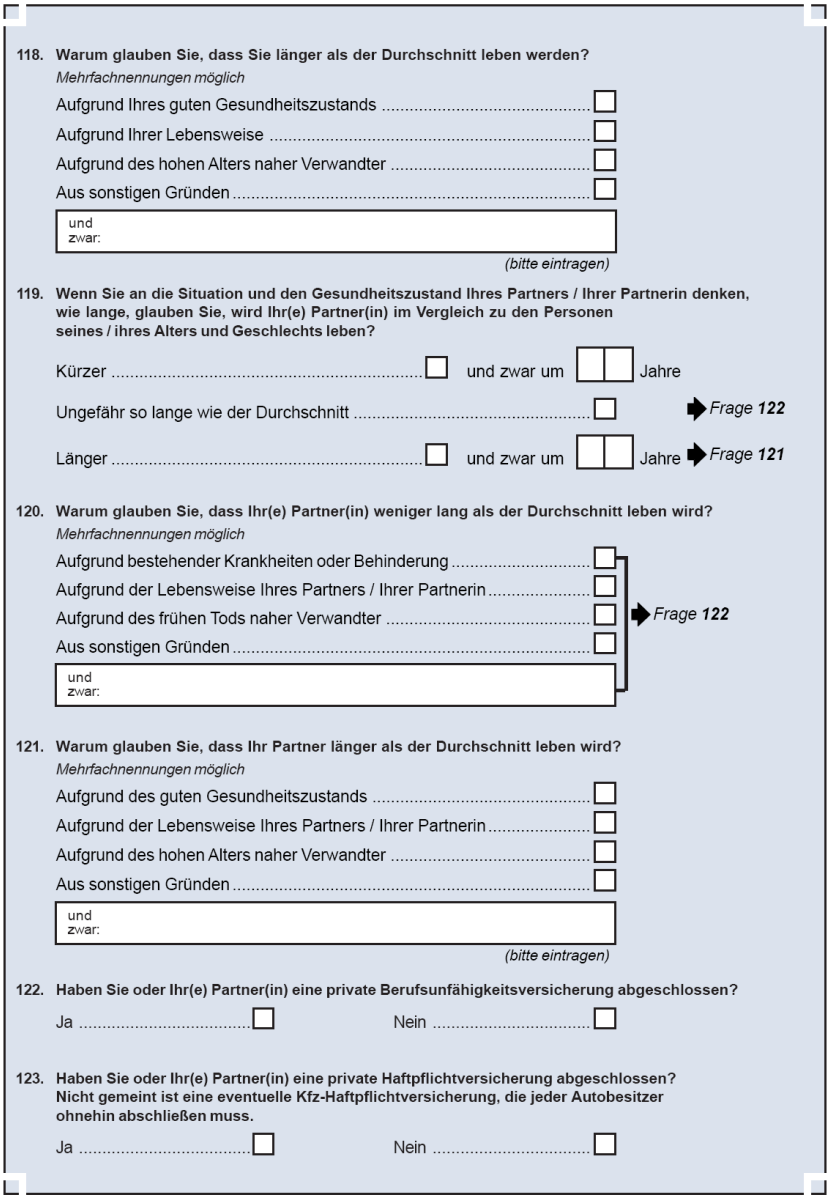
Länger ☐ und zwar um ☐☐ Jahre → *Frage* ***118***

117. Warum glauben Sie, dass Sie weniger lang als der Durchschnitt leben werden?

Mehrfachnennungen möglich

- Aufgrund bestehender Krankheiten oder Behinderung ☐
- Aufgrund Ihrer Lebensweise ☐
- Aufgrund des frühen Tods naher Verwandter ☐ → *Frage* ***119***
- Aus sonstigen Gründen ☐

und zwar: _____ *(bitte eintragen)*



118. **Warum glauben Sie, dass Sie länger als der Durchschnitt leben werden?**
Mehrfachnennungen möglich

Aufgrund Ihres guten Gesundheitszustands ☐
Aufgrund Ihrer Lebensweise ☐
Aufgrund des hohen Alters naher Verwandter ☐
Aus sonstigen Gründen ☐

und zwar: *(bitte eintragen)*

119. **Wenn Sie an die Situation und den Gesundheitszustand Ihres Partners / Ihrer Partnerin denken, wie lange, glauben Sie, wird Ihr(e) Partner(in) im Vergleich zu den Personen seines / ihres Alters und Geschlechts leben?**

Kürzer ☐ und zwar um ☐☐ Jahre
Ungefähr so lange wie der Durchschnitt ☐ → *Frage **122***
Länger ☐ und zwar um ☐☐ Jahre → *Frage **121***

120. **Warum glauben Sie, dass Ihr(e) Partner(in) weniger lang als der Durchschnitt leben wird?**
Mehrfachnennungen möglich

Aufgrund bestehender Krankheiten oder Behinderung ☐
Aufgrund der Lebensweise Ihres Partners / Ihrer Partnerin ☐
Aufgrund des frühen Tods naher Verwandter ☐ → *Frage **122***
Aus sonstigen Gründen ☐

und zwar:

121. **Warum glauben Sie, dass Ihr Partner länger als der Durchschnitt leben wird?**
Mehrfachnennungen möglich

Aufgrund des guten Gesundheitszustands ☐
Aufgrund der Lebensweise Ihres Partners / Ihrer Partnerin ☐
Aufgrund des hohen Alters naher Verwandter ☐
Aus sonstigen Gründen ☐

und zwar: *(bitte eintragen)*

122. **Haben Sie oder Ihr(e) Partner(in) eine private Berufsunfähigkeitsversicherung abgeschlossen?**

Ja ☐ Nein ☐

123. **Haben Sie oder Ihr(e) Partner(in) eine private Haftpflichtversicherung abgeschlossen? Nicht gemeint ist eine eventuelle Kfz-Haftpflichtversicherung, die jeder Autobesitzer ohnehin abschließen muss.**

Ja ☐ Nein ☐

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Selbsteinschätzung

124. Wir bitten Sie nun einzuschätzen, in wieweit die folgenden Aussagen auf Sie zutreffen.

Bewerten Sie es bitte anhand einer Skala von 0 bis 10.
*"0" bedeutet **völlig unzutreffend** und "10" bedeutet **völlig zutreffend***

Ich bin ...	***völlig unzutreffend***										***völlig zutreffend***
– ein gelassener Mensch	0	1	2	3	4	5	6	7	8	9	10
– ein Gewohnheitstier	0	1	2	3	4	5	6	7	8	9	10
– offen für Veränderungen	0	1	2	3	4	5	6	7	8	9	10
– optimistisch	0	1	2	3	4	5	6	7	8	9	10
– selbstsicher	0	1	2	3	4	5	6	7	8	9	10
– fröhlich	0	1	2	3	4	5	6	7	8	9	10
– pessimistisch	0	1	2	3	4	5	6	7	8	9	10

Es macht mir nichts aus, Risiken einzugehen bei ...	***völlig unzutreffend***										***völlig zutreffend***
– meiner eigenen Gesundheit	0	1	2	3	4	5	6	7	8	9	10
– meiner beruflichen Karriere	0	1	2	3	4	5	6	7	8	9	10
– bei Geldanlagen	0	1	2	3	4	5	6	7	8	9	10
– bei Freizeit und Sport	0	1	2	3	4	5	6	7	8	9	10
– beim Autofahren	0	1	2	3	4	5	6	7	8	9	10

125. Wir bitten Sie nun einzuschätzen, in wieweit die folgenden Aussagen auf Sie zutreffen.

Bewerten Sie es bitte anhand einer Skala von 0 bis 10.
*"0" bedeutet **völlig unzutreffend** und "10" bedeutet **völlig zutreffend.***

	völlig unzutreffend										***völlig zutreffend***
Ich kümmere mich lediglich um dringende Angelegenheiten, da sich zukünftige Probleme oft von selbst regeln	0	1	2	3	4	5	6	7	8	9	10
Tätigkeiten, die greifbare und unmittelbare Resultate aufweisen, sind für mich wichtiger als Tätigkeiten, deren Resultate sich erst in fernerer Zukunft einstellen	0	1	2	3	4	5	6	7	8	9	10

126. Wo würden Sie sich selbst zwischen den folgenden beiden Personentypen einstufen:
Bewerten Sie es bitte anhand einer Skala von 0 bis 10.
*"0" bedeutet: Ich **lebe in den Tag hinein** und nehme das Leben, wie es kommt. Ich denke wenig über die Zukunft nach und mache mir keine großen Sorgen über die Zukunft.*
*"10" bedeutet: Ich **beschäftige mich viel mit der Zukunft**, und weiß ziemlich genau, was ich später sein will und tun möchte.*

Nur in den Tag hineinleben — ***Genaue Zukunftspläne schmieden***

0 1 2 3 4 5 6 7 8 9 10

127. Wo würden Sie sich selbst zwischen den folgenden beiden Personentypen einstufen:
Bewerten Sie es bitte anhand einer Skala von 0 bis 10.
*"0" bedeutet: Ich entscheide **schnell und impulsiv**. Dinge, die mir gut gefallen, möchte ich gerne sofort haben.*
*"10" bedeutet: Ich bin **abwartend und abwägend** und brauche viel Zeit, um Entscheidungen zu treffen oder mir eine Meinung zu bilden.*

Impulsiv und schnell — ***Abwägend und abwartend***

0 1 2 3 4 5 6 7 8 9 10

128. Haben Sie oder Ihr(e) Partner(in) einen Zugang zum Internet? Falls ja, wo?
Mehrfachnennungen möglich.

- Zuhause ☐
- Am Arbeitsplatz ☐
- In der Schule oder Universität ☐
- In sonstigen öffentlichen Einrichtungen ☐
- Keine Möglichkeit zur Internetnutzung ☐ → *Frage **130***

129. Wie oft nutzen Sie oder Ihr(e) Partner(in) das Internet?

- Täglich ☐
- Mehrmals wöchentlich ☐
- Mindestens einmal im Monat ☐
- Seltener als einmal im Monat ☐

130. Abschließend möchte ich Sie noch um einen Kommentar zu unserer Befragung bitten. Was hat Ihnen am Fragebogen gefallen, was hat Ihnen nicht gefallen?

Herzlichen Dank für Ihre Mitarbeit !!!

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7.2 Item non-response and imputation

7.2.1 Motivation

To deal with item nonresponse, one can resort to a complete-case analysis, to model-based approaches that incorporate the structure of the missing data, or one can use imputation procedures.[37] A complete-case analysis may produce biased inference, if the dataset with only complete observations differs systematically from the target population; weighting of the complete cases reduces the bias but generally leads to inappropriate standard errors. Additionally, a complete-case analysis leads to less efficient estimates, since the number of individuals with complete data is often considerably smaller than the total sample size.[38] Formal modeling that incorporates the structure of the missing data involves basing inference on the likelihood or posterior distribution under a structural model for the missing-data mechanism and the incomplete survey variables, where parameters are estimated by methods such as maximum likelihood. Multiple imputation essentially is a way to solve the modeling problem by simulating the distribution of the missing data (Rubin, 1996). Ideally, the imputation procedures control for all relevant observed differences between nonrespondents and respondents, such that the results obtained

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[37] An overview of approaches to deal with item nonresponse is presented in Rässler and Riphahn (2006).

[38] Rubin (1987) and Little and Rubin (2002) illustrate and discuss biased inference and efficiency losses based on complete-case analyses and weighted complete-case analyses.

from the analysis of the complete dataset are less biased overall and estimates are more efficient than in an analysis based on complete cases only.

The goal of imputation is not to create any artificial information but to use the existing information in such a way that public users can analyze the resulting complete dataset with standard statistical methods for complete data. It is often seen as the responsibility of the data provider to provide the imputations: First, because imputation is a very resources-consuming process that is not at the disposal of many users. Second, because some pieces of information which are very useful for the imputation, such as information on interviewer characteristics, are not available to the public. Users are free to ignore the imputations, all imputed values are flagged. The following paragraphs will offer a description of the imputation procedure in SAVE: details on the theoretical assumption, an assessment of the convergence properties of the imputation algorithm and a descriptive analysis of the imputed and observed data can be found in Schunk (2008).

7.2.2 Variable Definitions

The multiple imputation method for SAVE (MIMS) distinguishes between core variables and non-core variables. The core variables have been chosen such that they cover the financial modules of the SAVE survey that involve all questions related to income, saving(s), and wealth of the household. The non-core variables include socio-demographic and psychometric variables, as well as indicator

variables for household economic behavior. Except for the participation questions of the core variables (e.g., “Did you or your partner own asset X?”) and the question about the value of owner-occupied housing, all core variables have missing rates of at least 6%. The non-core variables have considerably lower missing rates, in almost all cases much less than 2%. The following variables (grouped into three categories) are defined as core-variables:

- Income variables (E): 40 binary variables indicating income components, 1 continuous variable for monthly net income, and 1 ordinal variable indicating net income in follow-up brackets.
- Savings variables (S): 1 binary variable indicating whether the household has a certain savings goal, 1 continuous variable indicating the amount of this savings goal, and 1 continuous variable indicating the amount of total annual saving.
- Asset variables (A): 48 binary variables indicating asset ownership and credit, 44 continuous variables indicating the particular amounts.

All other variables in the dataset are non-core variables.

7.2.3 Algorithmic Overview

MIMS is a multiple imputation procedure that is based on the idea of a Markovian process.[39] The general algorithmic structure of MIMS is similar to the FRITZ imputation method that is used for the multiple imputation of the Survey of Consumer Finances and for the Spanish Survey of Household Finances (Kennickell, 1998; Bover, 2004). To set the stage for a more detailed discussion of MIMS in the next section, this section gives a brief algorithmic overview of MIMS.

For this purpose, all variables are categorized as follows:

- All variables that are not core variables are called other variables, O.
- P is a subset of O, the subset of all variables that is used as conditioning variables or predictors for the current imputation step.
- The union of all variables from P and all core variables that are used as conditioning variables for the current imputation step is referred to as the set C (= conditioning variables). In the following algorithmic description, C always contains the updated information based on the most recent iteration step. It contains, in particular, the imputed core variables that have been obtained in the last iteration step.

The complete imputation algorithm for the SAVE data works as follows:

[39] For a description of the Markov Chain Monte Carlo method see Schunk (2008)

- Impute all variables using logical imputation, whenever possible.
Outer Loop *– REPEAT 5 times, j = 1,..., 5 (= Generate 5 datasets)*
- Impute variables from O using (sequential) hotdeck imputation, obtain complete data ***O****.*
- Impute the income variables E using ***P****, obtain complete data* ***E****.*
- Impute the savings variables S using ***P**** *and* ***E****, obtain complete data* ***S****.*
- Impute the asset variables A using ***P****,* ***E****, and* ***S****, obtain complete data* ***A****.*
Inner Loop *– REPEAT N times (= Iterate N times)*
- Impute the income variables E using ***C****.*
- Impute the savings variables S using ***C****.*
- Impute the asset variables A using ***C****.*
Inner Loop *– END*
Outer Loop *– END*

The five repetitions in the outer loop generate one imputed dataset each. After the complete algorithm, five complete datasets are obtained, which I henceforth refer to as implicates. The algorithm generates an additional flag-dataset which contains binary indicators that identify for each value whether it has been imputed or observed.

7.2.4 Description of MIMS

As the algorithmic description shows, MIMS follows a fixed path through the dataset. The first step of the procedure consists of logical imputation. In many cases, the complex tree structure of the SAVE survey or cross-variable relationships allow for the possibility to logically impute missing values. The following path through the dataset is guided by the knowledge of the missing item rates and by cross-

variable relationships. The path starts with variables with low missing rates, such that those variables can subsequently be used as conditioning variables for variables with higher missing rates. For example, among the core variables, the net income variable is imputed first, since its missing rate is generally lower than the missing rates of other core variables.[40] The algorithmic description shows that as soon as the iteration loop starts, all variables are already imputed, i.e. starting values for the iteration process have been obtained, and all variables can be used as conditioning variables during the iteration.

Each variable is imputed based on one of the following three general methods:41

(1) For all categorical or ordinal variables with only few categories and with a low missing rate, a hotdeck procedure with several conditioning variables is used.

(2) For all binary, categorical, or ordinal core variables, binomial or ordered Probit models are used.

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[40] The lower missing rate for the net income variable is – at least partly – due to the survey design. The net income question was presented using an open-ended format with follow-up brackets for those who did not answer the open-ended question. The imputation of the bracket answers is described later in this paper.

[41] These methods and their application to binary, categorical, ordinal and (quasi-)continuous variables with high and low missing rates are illustrated and discussed in more detail in Little and Rubin (2002).

(3) For all c*ontinuous or quasi-continuous variables,* randomized linear regressions with normally distributed errors are used. This regression procedure, in particular the handling of constraints and restrictions, follows Bover (2004) and Kennickell (1998). First, the conditional expected value is estimated and an error term, drawn from a symmetrically censored normal distribution, is added. This normal distribution has mean zero and its variance is the residual variance of the estimation. The error term is always restricted to the central three standard deviations of the distribution in order to avoid imputing extreme values. In few cases, logical or other constraints require that the error term has to be further restricted; examples are non-negativity constraints. The imputed value is also restricted to lie in the observed range of values for the corresponding variable. That is, in particular, imputed values will not be higher than observed values for a certain variable.

Due to the skip patterns in the questionnaire, the SAVE data have a very complex tree structure that imposes a logical structure and that has to be accounted for in the imputation process. Further constraints stem from these logical conditions of the data, from the ranges provided (e.g., bracket respondents), from cross-relationships with other variables, or from any prior knowledge about feasible outcomes. For several variables, the specification of all relevant constraints is the most complex part of the imputation software. If necessary, the procedure draws from the estimated conditional distribution limited to the central three standard deviations, until an

outcome is found that satisfies all possible constraints that apply in the particular case.

Two remarks are important at this point to gain an understanding of key procedures of the algorithm.

(1) Ownership and amount imputations

For certain quantities, e.g. the amount of assets held by a household, the SAVE survey uses a two-step question mode: In step one, households are asked about ownership of assets from a certain asset category and a binary variable records the answer. In step two, those households that have reported that they own assets from the particular category are asked about the exact value of the corresponding assets. From a modeling point of view, this is a corner solution application. Following Bover (2004) and Kennickell (1998), a hurdle model is used in MIMS to impute the missing values in these two steps: First, a Probit model is estimated for the binary ownership variable, and missing information is predicted. Then, as described above, randomized linear regressions with normally distributed errors are used for imputing continuous amounts. These regressions are estimated based on all observations that own the asset. Alternatively, Tobit models or sample-selection models might be appropriate. Tobit models are less attractive for the given problem, since they include the implicit assumption that the model governing selection and the model governing the estimation of the amounts are the same. Heckman selection models are theoretically attractive, but cause estimation problems in practice: First, the necessary exclusion restrictions differ substantially across asset categories, but there is no theoretical reason why they should differ.

Second, in most cases, strong exclusion restrictions are needed to ensure identification and convergence of the Heckman procedure in each iteration step of MIMS. This means that in practice only a very small set of conditioning variables can be used for the estimation of the second step of the Heckman model. Under these circumstances and given that the goal of the multiple imputation method is to simulate the distribution of amounts conditional on ownership and conditional on a maximally large set of potentially correlated variables, MIMS uses hurdle models for ownership and amount imputations.

(2) Net income variables

To alleviate the problem of item nonresponse to income questions (see, e.g., Juster and Smith, 1997), the survey question on monthly net income was presented using an open-ended format with follow-up brackets for those who did not answer the open-ended question. That is, there are two types of income information available: Exact (in the sense of point data) income information for households that answered the open-ended question, and interval information on household income for those who only answered the bracket question. To make best possible use of all the available income information, the imputation procedure uses a maximum-likelihood estimation procedure. The likelihood is a mixture of discrete terms (for the interval information) and continuous terms (for the point data information). After prediction of the missing income values and the addition of the randomized error term, a nearest neighbor approach is used to

determine the imputed amount for household net income.[42] The procedure works as follows: First, an income bracket is predicted for all complete nonrespondents to both (i.e., open-ended *and* bracket) income questions. Now, all observations have either exact income information (if they have reported this information) or bracket information (either they have reported this information, or it has been imputed in the preceding step). Then, each observation *i* for whom an exact net income value has to be imputed and whose net income lies in bracket *j* is matched with the continuous reporter *r* from bracket *j* whose predicted net income value is closest to the predicted value of respondent *i*. The net income value assigned to observation *i* is then the reported continuous income value of the respondent *r*.[43]

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[42] Nearest neighbor methods have been motivated in a statistical missing data context by Little et al. (1988) and they have subsequently used in the context of bracketed follow-up questions by, e.g., Hoynes et al. (1998) in the AHEAD.

[43] In contrast to this procedure, Hoynes et al. (1998) impute the brackets for the full nonrespondents using an ordered Probit model that is estimated using *only* those respondents that have provided bracket answers. The chosen procedure in MIMS has the advantage of making better use of the available information (since it uses the information from bracket respondents *and* from contiuous, i.e. open-ended, respondents) and it circumvents the practical problem in SAVE that the subsample of bracket respondents is too small to be able to include much conditioning information into the estimation of an ordered Probit model. Hoynes et al. (1998) motivate their procedure by arguing that full nonrespondents are more similar to bracket respondents than to continuous reporters. Note, however, that the evidence on the similarity between

7.2.5 Selection of conditioning variables

As is clear from the descriptions above, each regression or hotdeck method is tailored specifically to the variable to be imputed.[44] Of particular importance are the conditioning variables which have been selected individually for every single variable with missing information according to the following guidelines:

(A) Hotdeck imputations: *Hotdeck imputations,* which have been used for discrete variables with very low missing rates, allow for only few and discrete conditioning variables due to the quickly increasing number of the corresponding conditioning cells. The conditioning variables have first been selected based on theoretical relationships if available and, second, based on the strength of a correlation with the variable to be imputed; those correlations have been systematically explored. As an example for the latter, consider the question which asks respondents to rate their expectation concerning the future development of their own health situation on a scale from 0 (negative) to 10 (positive), which has a missing rate of 0.6%. As conditioning variables, the respondents' age (subdivided into five age classes), self-assessed information on the respondents' current health status (rated on a scale

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nonrespondents, bracket respondents and continuous respondents is mixed (Kennickell, 1997).

[44] A spreadsheet with information on the specific imputation methods for each imputed variable in SAVE (e.g., hotdeck, various regression techniques), as well as information on the used conditioning variables can be obtained from the author upon request.

from 0 to 10 and subdivided into three classes), and self-assessed information on how optimistic the respondent generally is (rated on a scale from 0 to 10 and subdivided into three classes) are used.[45] All these conditioning variables are significantly correlated with the variable to be imputed, both individually, as well as jointly in a multiple regression. In some cases, it would be desirable to include core variables as additional conditioning variables in the hotdeck imputations. For example, net income is clearly expected to be correlated with educational status. Generally, the pattern of nonresponse makes this impossible, since the set of nonrespondents to the qualitative questions is in almost all cases a subset of the set of nonrespondents to the relevant core questions.

(B) Regression-based imputations: In theory, every *regression-based imputation* should use all relevant variables in the dataset, as well as higher powers and interactions of those terms as conditioning variables (Little and Raghunathan, 1997; Schunk, 2008). The imputation procedure should, in particular, attempt to preserve the relationships between all variables that might be jointly analyzed in future studies based on the imputed data (Schafer, 1997). In practice, a limit to the number of included conditioning variables is imposed by the degrees of freedom of the regressions. Additionally, there must not be collinearity between conditioning variables, which can easily arise in some cases due to the tree structure of the questions. Due to these constraints concerning the inclusion of conditioning variables, it is of particular

[45] Note that these three conditioning variables already correspond to $5 \cdot 3 \cdot 3 = 45$ different cells.

importance to select these variables following certain guidelines such that best possible use is made of the available information. For that purpose, the variables used in the regression-based imputations of the core variables have been classified into three non-disjoint categories:

(B-1) *Determinants of the nonresponse.*
Research in psychology, economics, and survey methodology has investigated the relationship between observed respondent and household characteristics and item nonresponse behavior in various survey contexts (for an overview, see Groves et al., 2002). Findings from empirical studies that focus particularly on financial survey items suggest that certain variables might be useful predictors of nonresponse to wealth and income questions (Hoynes et al., 1998; Riphahn and Serfling, 2005). Following these findings, MIMS considers the following variables as determinants of nonresponse to the core variables: Age (as well as squared and cubic age), gender, dummy variables for educational achievement and employment status, as well as household size. Riphahn and Serfling (2005) and Schräpler and Wagner (2001) provide evidence that it is not only the individual respondent's characteristics that may be associated with item nonresponse to financial variables, but also the combination of interviewer and respondent characteristics. In this spirit, the following variables that capture the relationship between interviewer and interviewee characteristics are also considered as determinants of nonresponse to the core financial variables in SAVE: Dummies for whether the interviewer is older than the interviewee, for her/his educational status relative to the interviewee, for the interviewer's gender, and for the gender combination of interviewer and interviewee.

(B-2) *Variables that* are *related to the variable to be imputed based on different economic models.*

This category contains essentially all core variables, since financial characteristics of households, e.g. saving(s), income and asset categories, are all interrelated. Certain qualitative variables on household socio-economic and financial characteristics that are not already part of the variables in *(B-1)* are also included, for example an indicator for marital status. Variables that measure individual preferences, such as measures for risk attitude, are further included into this category.

(B-3) Other variables that might be related to the variables to be imputed.

This category includes variables that are correlated with the variables to be imputed but this relationship is not captured in any formal established economic theory that the author knows of. An example is the smoking habit of the respondent: While there is no formal theory that directly relates smoking habits to economic characteristics of a household, there is abundant evidence for a statistically strong association between smoking habits and economic characteristics (e.g., Hersch, 2000; Hersch and Viscusi, 1990; Levine et al., 1997).

The selection of the conditioning variables for the regression is based on the following procedure: First, since the goal is to include as many conditioning variables as possible, all variables from categories *(B-1)*, *(B-2)*, and *(B-3)* are included for each imputation regression. If necessary – because of multicollinearity or insufficient degrees of

freedom – variables are removed in the following order: First, variables from *(B-3)* are removed. Then, variables from *(B-2)* are aggregated if possible: E.g., instead of including information on the value of owner-occupied housing and on other real estate as two separate conditioning variables, these two variables can be combined to form a variable for total real estate wealth. In a few cases, notably variables with very low variability, such as the measure of wealth in "other contractually agreed private pension schemes", further conditioning variables from category *(B-2)* have to be removed. In this case, the decision is based on the significance of the variables in the regression. Generally, psychometric variables are removed first and credit variables are removed subsequently, since those variables have the lowest variability and the highest missing rate among the core variables.

Weights used in SAVE

7.2.6 Preliminary Remarks

For reasons of representativeness, observations are weighted when doing computations with SAVE data. To calculate the weights, Mikrozensus surveys from the Statistisches Bundesamt are taken into account as a representative standard of comparison.

There are two types of weights, each of which compare SAVE to the Mikrozensus in two dimensions. The first type of weights compares SAVE to the Mikrozensus dependent on the dimensions age and income, the second type dependent on household size and income.

7.2.7 Calculation of weights dependent on age and income

The observations in SAVE are split into 9 categories („cells“) according to 3 age classes and 3 income classes:

	Income class 1	**Income class 2**	**Income class 3**
Age class 1	*Cell 1*	*Cell 2*	*Cell 3*
Age class 2	*Cell 4*	*Cell 5*	*Cell 6*
Age class 3	*Cell 7*	*Cell 8*	*Cell 9*

The number of observations in each cell is divided by the total

number of observations in the SAVE sample in order to calculate each cell's relative frequency in the sample. Thus, there are 9 relative frequencies which add up to 1. For the Mikrozensus, the observations are split into the 9 cells accordingly (3 age classes, 3 income classes) to determine each cell's relative frequency in the Mikrozensus sample.

Dividing the relative frequency of each cell in the Mikrozensus by the relative frequency of the corresponding cell in SAVE yields the weight for each cell. One weight is assigned to each observation according to the observation's cell. Since there are 9 cells, there exist 9 weights per sample.

A weight greater than 1 implies that the cell's appearance in the representative Mikrozensus is higher than in SAVE. Thus, SAVE observations in this cell are weighted relatively high. A weight smaller than 1 implies that the cell's appearance in the representative Mikrozensus is lower than in SAVE. Therefore, SAVE observations are weighted relatively low. A weight equal to 1 implies that the cell's appearance in SAVE corresponds to the representative appearance in the Mikrozensus.

Two different age class definitions are applied to construct the weights in SAVE.

Method 1:

The weights resulting from this method are the most common ones used in computations with SAVE data.

The following three age classes are applied:

Age class 1: under 35 years of age

Age class 2: 35 to 55 years of age

Age class 3: 55 years or above

The following three income classes are applied:

Income class 1: below 1300 € of net income per month

Income class 2: 1300 € to 2600 € of net income per month

Income class 3: 2600 € of net income per month and above

As described above, the weight of each cell is determined and each observation is assigned one of the nine different weights according to which cell they belong.

Method 2:

This method corresponds to method 1 except for the age classes applied. Method 2 uses the following age classes:

Age class 1: under 35 years of age

Age class 2: 35 to 65 years of age

Age class 3: 65 years or above.

The three income classes remain the same.

7.2.8 Calculation of weights dependent on household size and income

The calculation of weights dependent on household size and income corresponds to the calculation dependent on age and income. Instead of age classes, however, 3 different household sizes are used to divide the observations into 9 cells.

	Income class 1	**Income class 2**	**Income class 3**
Household size 1	*Cell 1*	*Cell 2*	*Cell 3*
Household size 2	*Cell 4*	*Cell 5*	*Cell 6*
Household size 3	*Cell 7*	*Cell 8*	*Cell 9*

The following household sizes are applied:

Household size 1: one person
Household size 2: two persons
Household size 3: three persons or more

The three income classes remain the same.

Each set of weights is calculated in every wave twice, once for the whole sample and once separately for each subsample (that is, Random Sample and Access Panel) in the survey. Schunk (2006) offers further details on the weight variables included in each dataset available for public use.

8. References

Abel. A. B. (1985) Precautionary Saving and Accidental Bequest. American Economic Review, 75(4), 777 – 791.

Ameriks, J., Zeldes, S. (2004) How Do Household Protfolio Shares Vary with Age?, Working Paper, Columbia Business School.

Ando, A., Guiso, L. und Terlizzese, D., (1993), Dissaving by the Elderly, Transfer Motives and Liquidity Constraints, NBER Working Paper 4569, National Bureau of Economic Research.

Banca d'Italia (1991) Supplementi al Bollettino statistico: indagini campionarie. I bilanci delle famiglie nell'anno 1989, Anno I, No. 26.

Banca d'Italia (1993) Supplementi al Bollettino statistico: indagini campionarie. I bilanci delle famiglie nell'anno 1991, Anno III, No. 44.

Banca d'Italia (1995) Supplementi al Bollettino statistico: indagini campionarie. I bilanci delle famiglie nell'anno 1993, Anno V, No. 9.

Banca d'Italia (1997) Supplementi al Bollettino statistico: indagini campionarie. I bilanci delle famiglie nell'anno 1995, Anno VII, No. 14.

Banca d'Italia (2000) Supplements to the Statistical Bulletin. Methodological notes and statistical information. Italian Households Budgets in 1998. Year X, No. 22.

Banca d'Italia (2002) Supplements to the Statistical Bulletin. Methodological notes and statistical information. Italian Households Budgets in 2000. Year XII, No. 6.

Banca d'Italia (2004) Supplements to the Statistical Bulletin. Methodological notes and statistical information. Italian Households Budgets in 2002. Year IV, No. 12.

Banca d'Italia (2006) Supplements to the Statistical Bulletin. Sample Surveys. Italian Households Budgets in 2004. Year XVI, No. 7.

Banks, J., Blundell, R.. und Tanner, S. (1998), Is There a Retirement Savings Puzzle? The American Economic Review, 88(4), 769-788.

Barceló, C. (2006), Imputation of the 2002 wave of the Spanish Survey of Household Finances (EFF). Occasional Paper No. 0603, Bank of Spain.

Beatty, P., Hermann, D. (2002) To answer or not to answer: Decision processes related to survey item nonresponse, in: Groves, R.M., Dillman, D.A., Eltinge, J.L., Little, R.J.A. (eds.) Survey Nonresponse, Wiley, New York, 71 – 85.

Bernheim, B. D. (1993), Is the Baby Boom Generation Saving Adequately for Retirement? Summary Report, Merril Lynch, Pierce, Fenner, & Smith Inc., New York.

Bernheim, B.D., Shleifer, A., Summers, L.H. (1985) The Strategic Bequest Motive. The Journal of Political Economy , 93(6), 1045 – 1076.

Bernheim, D., Skinner, J. und Weinberg, S. (2001), What Accounts for the Variation in Retirement Wealth among U.S. Households? American Economic Review, 91(4), 832-857.

Bertaut, C.C. (1998) Stockholding Behavior of U.S. Households: Evidence from the 1983 – 1989 Survey of Consumer Finances. Review of Economics and Statistics, 80(2), 263 – 275.

Biewen, M. (2001) Item non-response and inequality measurement: Evidence from the German earnings distribution, Allgemeines Statistisches Archiv 85, 409 – 425.

Börsch-Supan, A. (2000a), Das Sparverhalten verstehen, Berlin-Brandenburgische Akademie der Wissenschaften, Berichte und Abhandlungen, Band 8, Berlin, Akademie-Verlag, 25-43.

Börsch-Supan, A. (2001), International Comparison of Household Savings Behaviour: A Study of Life-Cycle Savings in Seven Countries, Research in Economics, 55, 1-14.

Börsch-Supan, A. (2003), Life-Cycle Savings and Public Policy, Academic Press, New York.

Börsch-Supan, A. (2004), Mind the Gap: The Effectiveness of Incentives to boost Retirement Saving in Europe, MEA Discussion Paper 52-04, MEA – Mannheimer Forschungsinstitut Ökonomie und Demographischer Wandel, Universität Mannheim.

Börsch-Supan, A. (2005), Risiken im Lebenszyklus Theorie und Evidenz, MEA Working Paper 069-05, Universität Mannheim.

Börsch-Supan, A., Stahl, K. (1991) Life cycle savings and consumption constraints. Journal of Population Economics 4(3), 233 – 255.

Börsch-Supan, A., Reil-Held, A., Schnabel, R. (1999) Pension provision in Germany, in: Johnson, P. (ed.) Pensioners' income: International Comparisons. MIT Press, Cambridge, MA.

Börsch-Supan, A. und Brugiavini, A. (2001), Savings: The Policy Debate in Europe, Oxford Review of Economic Policy, 17 (1), 116-143.

Börsch-Supan, A. und Miegel, M. (2001), Pension Reform in Six Countries, Springer, Miegel, M. (Hg.), Heidelberg, New York, Tokyo.

Börsch-Supan, A. und Essig, L. (2003), Stockholding in Germany, in: Guiso, L., Haliassos, M. und Jappelli, T. (Hg.), Stockholding in Europe, Palgrave MacMillan, 110-140.

Börsch-Supan, A. und Lusardi, A. (2003), Saving: A Cross-National Perspective, in: Life Cycle Savings and Public Policy, Academic Press, New York, 1-31.

Börsch-Supan, A., Reil-Held, A. und Schnabel, R. (2003), Household Saving in Germany, in: Life Cycle Savings and Public Policy, Elsevier Science (USA), 57-99.

Börsch-Supan, A. und Wilke, C. B. (2004), The German Public Pension System: How it Was, How it Will Be, NBER Working Paper 10525, National Bureau of Economic Research, Cambridge.

Börsch-Supan, A. und Essig, L. (2005a), Household Saving in Germany: Results of the first SAVE Study, in: Wise, D. A. (Hg.), Analyses in the Economics of Aging, University of Chicago Press.

Börsch-Supan, A. und Essig, L. (2005b), Personal Assets and Wealth Ownership: How Well are the Germans Prepared?, MEA Discussion Paper 085 – 05, MEA, Universität Mannheim.

Börsch-Supan, A., Essig, L. Wilke, C. (2005c) Rentenlücken und Lebenserwartung. Wie sich die Deutschen auf den Anstieg vorbereiten, Deutsches Institut für Altersvorsorge, Eigenverlag Köln.

Börsch-Supan, A., Reil-Held, A., Schunk, D. (2006) Das Sparverhalten deutscher Haushalte: Erste Erfahrungen mit der Riester-Rente. MEA Discussion Paper 114 – 2006, Universität Mannheim.

Börsch-Supan, A., Reil-Held. A. und Schunk, D. (2008): Saving incentives, old-age provision and displacement effects: evidence from the recent German pension reform, Forthcoming: Journal of Pension Economics and Finance.

Boskin, M.J., Hurd, M. (1978), The effect of social security on early retirement, Journal of Public Economics, 10(3), 361 – 377.

Bover, O. (2004) The Spanish Survey of Household Finances (EFF): Description and Methods of the 2002 Wave, Documentos Ocasionales N.º 0409, Banco de España, Madrid.

Brennan, M. Hoek, J., Astridge, C. (1991) The effects of monetary incentives on the response rate and cost-effectiveness of a mail survey. Journal of the market Research Society, 33(3), 229 – 241.

Browning, M. und Crossley, T. F. (2001), The life-cycle model of consumption and saving, Journal of Economic Perspectives, 15 (3), 3–22.

Browning, M. und Lusardi, A. (1996), Household saving: Micro theories and micro facts, Journal of Economic Literature, 34, 1797–1855.

Brugiavini, A., Weber, G. (2003), Household Saving: Concepts and Measurement, in: Life Cycle Savings and Public Policy, Elsevier Science (USA), 33-55.

Caballero, R. J. (1990) Consumption puzzles and precautionary savings, Journal of Monetary Economics, 25(1), 113 – 136.

Cagetti, M. (2003), Wealth accumulation over the life cycle and precautionary savings. Journal of Business and Economic Statistics, 21(3), 339–353.

Camerer, C.F., Loewenstein, G. (2004), Behavioural Economics: Past, Present, Future, in: C.F. Camerer, G. Loewenstein, M. Rabin (eds.) Advances in Behavioural Economics. Princeton University Press, Princeton and Oxford. 3 - 51.

Carroll, C.D.(1992) The Buffer-Stock Theory of Saving: Some Macroeconomic Evidence, Brooking Papers on Economic Activity, 1992(2), 61 – 156.

Carroll, C.D. (1994) How Does Future Income Affect Current Consumption?, The Quarterly Journal of Economics, 109(1), 111 – 147.

Carroll, C.D. (1996) Buffer Stock Saving: Some Theory, manuscript, Department of Economics, Johns Hopkins University.

Carroll, C.D. (1997), Buffer-stock saving and the life cycle/permanent income hyothesis, Quarterly Journal of Economics, 112, 1-55.

Carroll, C. D. und Samwick, A. A. (1997), How important is precautionary saving?, Review of Income and Statistics, 80, 410-419.

Chateauneuf, A., Eichberger, J., und Grant, S. (2003), Choice under Uncertainty with the Best and Worst in Mind: Neo-additive Capacities, SFB 504 Working Paper 03-10, Universität Mannheim.

Choi, J., Laibson, D., Madrian, B. und Metrick, A. (2001), Defined Contribution Pensions : Plan Rules, Participant Decisions, and the Path of Least Resistance, NBER Working Paper 8655, National Bureau of Economic Research.

Choi, J., Laibson, D., Madrian, B. und Metrick, A. (2003), Passive Decisions and Potent Defaults. NBER Working Paper 9917, National Bureau of Economic Research.

Coppola, M. (2008) The saving behaviour of German households: an analysis using a non-random sample, mimeo, Universität Mannheim.

Deaton, A. (1991), Saving and liquidity constraints, Econometrica 59, 1221-1248.

Deaton, A. (1992) Understanding Consumption. Oxford University Press, New York.

Deaton, A., Paxson, C. (2000). Growth and saving among individuals and households. Review of Economics and Statistics, 82(2), 212 – 225.

Essig, L. (2005a), Household Saving in Germany: Results from SAVE 2001-2003, MEA Discussion Paper 083 - 2005, Universität Mannheim.

Essig, L. (2005b), Precautionary Savings and Old Age Provision: Do Subjective Savings Measures Work?, MEA Discussion Paper 084 - 2005, Universität Mannheim.

Essig, L. (2005c), Methodological Aspects of the SAVE Data Set, MEA Discussion Paper 080 - 2005, Universität Mannheim.

Essig, L. und Winter, J. (2003), Item Nonresponse to Financial Questions in Household Surveys: An Experimental Study of Interviewer and Mode Effects, MEA Discussion Paper 039-2003, Universität Mannheim.

Eymann, A. (2000), Portfolio choice and knowledge, SFB 504 Working Paper 00-51, Universität Mannheim.

Eymann, A. und Börsch-Supan, A. (2002), Household Portfolios in Germany, in: Household Portfolios, ed. by Guiso, L., Haliassos, M. and Japelli, T., MIT Press.

Ferber, R. (1966) Item Nonresponse in a Consumer Survey, Public Opinion Quarterly, 30, 399 – 415.

Feldstein, M. (1974), Social Security, Induced Retirement, and Aggregate Capital Accumulation, Journal of Political Economy 82, 905-926.

Friedman, M. (1957) The Permanent Income Hypothesis: Comment', American Economic Review, 48, pp.990-91

Groves, R. M., Dillman, D. A., Eltinge, J. L. and Little, R. J. A. (2002): Survey nonresponse. New York: Wiley.

Gul, F. und Pesendorfer, W. (2001), Temptation and Self-Control, Econometrica, 69(6), 1403 – 1435.

Gul, F. und Pesendorfer, W. (2004), Self Control, Revealed Preferences and Consumption Choice, Review of Economic Dynamics, 7(2), 243-264.

Haider, S.J., Stephens, M (2007) Is there a Retirement-Consumption Puzzle? Evidence Using Subjective Retirement Expectations, The Review of Economics and Statistics, 89(2), 247 – 264.

Haveman, R., Wolfe, B.L., Warlick, J.L. (1988) Labor Market Behaviour of Older Men: Estimates from a Trichotomous Choice Model, Journal of Public Economics, 36(2), 153 – 175.

Heien, T., Kortmann, K. (2003) Spar- und Finanzanlageverhalten privater Haushalte (SAVE II). Methodenbericht. Infratest Sozialforschung, München.

Hersch, J. (2000) Gender, Income Levels, and the Demand for Cigarettes. Journal of Risk and Uncertainty, 21, 263-282.

Hersch, J. and Viscusi W.K.(1990) Cigarette Smoking, Seatbelt Use, and Differences in Wage-Risk Tradeoffs. The Journal of Human Resources, 25(2), 202-227.

Honig, M. (1996) Changes over time in Subjective Retirement Probabilities. PSC Publications, University of Michigan. HRS/AHEAD Working Paper 96-036.

Hoynes, H., Hurd, M., Chand, H. (1998), "Household Wealth of the Elderly under Alternative Imputation Procedures" in Wise, D. (ed.), *Inquiries of Economics of Aging*, The University of Chicago Press, Chicago, pp. 229-257.

Hubbard, G., Skinner, J. Zeldes, S. (1995) Precautionary Savings and Social Insurance, Journal of Political Economy, 103, 360 – 399.

Hujer, R., Fitzenberger, B., MaCurdy, T.E., Schnabel,R. (2001), Testing for uniform wage trends in West-Germany: A cohort analysis using quantile regressions for censored data, Empirical Economics, 26, pp. 41 – 86.

Hurd, M., McGarry, K. (1995) Evaluation of the Subjective Probabilities of Survival in the HRS, Journal of Human Resources, 30, S268-S292.

Hurd, M., McGarry, K. (2002) The Predictive Validity of Subjective Probabilities of Survival, The Economic Journal, 112, 966 – 985.

Hurd, M. und Rohwedder, S. (2003), The Retirement-Consumption Puzzle: Anticipated and Actual Declines in Spending at Retirement, NBER Working Paper 9586, National Bureau of Economic Research.

Investment Company Institute and the Securities Industry Association (2005) Equity Ownership in America, 2005. available at www.ici.org .

Juster, F.T., Smith, J. P. (1997) Improving the quality of economic data: Lessons from the HRS and AHEAD. Journal of the American Statistical Association, 92(440), 1268 – 1278.

Kahnemann, D., Tversky, A. (1979), Prospect theory: An analysis of decisions under risk. Econometrica, 47, 313 – 327.

Kalwij, A., van Soest, A. (2006) Item Non-Response and Alternative Imputation Procedures In Boersch-Supan, A., Juerges, H. (eds) The Survey of Health, Ageing and Retirement in Europe: Methodology, MEA Mannheim.

Kennickell, A. B. (1997): Using range techniques with CAPI in the 1995 Survey of Consumer Finances. Board of Governors of the Federal Reserve System, Washington, D.C.

Kennickell, A. (1998) Multiple Imputation in the Survey of Consumer Finances, Proceedings of the 1998 Joint Statistical Meetings, Dallas TX.

Kennickell, A. (2000a) An Examination of Changes in the Distribution of Wealth from 1989 to 1998

Kennickell, A. (2000b) “Asymmetric Information, Interviewer Behavior, and Unit Nonresponse”

Kennickell, A. (2003) “Reordering the Darkness: Application of Effort and unit Nonresponse in the Survey of Consumer Finance”

Kennickell, A. (2005) “Darkness Made Visible: Field Management and Nonresponse in the 2004 SCF”

Kennickell, A. and M. McManus (1993) “Sampling for Household Financial Characteristics Using Frame Information on Past Income”, paper presented at the 1993 Joint Statistical Meeting, Atlanta, GA.

Kennickell, A. Starr-McCluer, M., Sundén, A.E. (1997) Family Finances in the U.S.: Recent Evidence from the Survey of Consumer Finances, Federal Reserve Bulletin, 1 – 24.

Kennickell, A. Starr-McCluer,M., Surette, B. J. (2000), Recent Changes in U.S. Family Finances: Results from the 1998 Survey of Consumer Finances, Federal Reserve Bulletin, 1 – 29.

Kennickell, A. und Lusardi, A. (2005), Disentangling the importance of the precautionary saving motive, Department SCF Working Papers.

Kimball, M.S. (1990) Precautionary Saving and the Marginal Propensity to Consume, NBER Working Paper 3403, National Bureau of Economic Research.

King, B.F. (1983) Quota Sampling, in: Madow, W.G., Olkin, I., Rubin, D. B., Incomple Data in Sample Surveys, Vol. 2: Theory and Bibliographies. Academic Press, New York.

Klein, S., Porst, R. (2000) Mail Surveys. Ein Literaturbericht. Technischer Bericht Nr. 10/2000, ZUMA, Mannheim.

Kohli, M., Rein, M. (1991) The changing balance of work and retirement, in: Kohli, M., Rein, M., Guillemard, A.-M., van Gunsteren, H.(eds), Time for retirement: Comparative studies of early exit from the labor force. Cambridge University Press, Cambridge/New York, 1 – 35.

Laibson, D. (1997), Golden Eggs and Hyperbolic Discounting, The Quarterly Journal of Economics, 112(2), 443 – 478.

Laibson, D., Repetto, A., Tobacman,J., Hall, R.E., Gale, W.G., Akerlof. G.A. (1998) Self-Control and Saving for Retirement, Brookings papers on Economic Activity, 1998(1), 91 – 196.

Laue, E. (1995) Grundvermögen privater Haushalte Ende 1993. Wirtschaft und Statistik 6, 488 – 497.

Levine, P. B., Gustafson, T. A. and Velenchik A. D.(1997) More Bad News for Smokers? The Effects of Cigarette Smoking on Wages. Industrial and Labor Relations Review, 51, 493-509.

Little, R. J.A. and Raghunathan T. (1997), Should Imputation of Missing Data Condition on All Observed Variables? Proceedings *of the Section on Survey Research Methods*, Joint Statistical Meetings, Anaheim, California.

Little, R.J.A., Rubin D. B.(2002), *Statistical analysis with missing data*. Wiley, New York

Little, R.J.A., Sande, I.G., and Scheuren F.(1988), Missing-data adjustments in large surveys. *Journal of Business and Economic Statistics,* 6 (3), 117-131.

Lusardi, A. (1999), Information, Expectations and savings for Retirement, in: H. Aaron (ed.), Behavioral Dimensions of Retirement Economics, Brookings Institution Press and Russel Sage Foundation, Washington, D.C., 81 – 115.

Madrian, B. und Shea, D. (2001), The Power of Suggesstion: Inertia in 401(k) Participation and Savings Behaviour, The Quarterly Journal of Economics CXVI (4), 1149-1187.

Mitchell, O.S., Utkus, S.P. (2004) Lessons form Behavioral Finance for Retirement Plan Design, in: O.S. Mitchell, S.P.Utkus (eds.), Pension Design and Structure. New Lessons from Behavioral Finance. Oxford University Press Inc., New York. 3 – 41.

Modigliani, F., and R. H. Brumberg (1954) "Utility analysis and aggregate consumption functions: an attempt at integration", in Andrew Abel (ed.) The Collected Papers of Franco Modigliani: Volume 2, The Life Cycle Hypothesis of Saving. The MIT Press, Cambridge, MA. Pp 128–197.

Palumbo, M. (1999), Uncertain medical expenses and precautionary saving near the end of the life cycle, Review of Economic Studies, 66, 395–421.

Porst, R. (1996) Ausschöpfungen bei sozialwissenschaftlichen Umfragen: Die Sicht der Institute. Arbeitsbericht Nr. 96/07, ZUMA Mannheim.

Poterba, J. M. und Samwick, A. A. (1997), Household Portfolio Allocation over the Life-Cycle, NBER Working Paper 6185, National Bureau of Economic Research.

Poterba, J.M. (2001), Demographic structure and assets returns, Review of Economics and Statistics, 83(4), 565–584.

Puri, M., Robinson, D. (2005) Optimism and Economic Choice, NBER Working Paper 11361, National Bureau of Economic Research.

Reil-Held, Anette (2007) Zur Reform der Erbschaftsteuer: Handlungsbedarf nach dem Urteil des Bundesverfassungsgerichts - Sparanreize und Verteilungswirkungen. Zeitschrift für Wirtschaftspolitik 56(3), 313-325.

Rässler, S. and R. Riphahn (2006) Survey item nonresponse and its treatment. Allgemeines Statistisches Archiv, 90, 217 – 232.

Riphahn, R. T. (1997) Disability retirement and unemployment – substitute pathways for labour force exit? An empirical test for the case of Germany. Applied economics, 29(5), 551 – 561.

Riphahn, R. T., Serfling, O. (2005) Item non-response on income and wealth questions. Empirical Economics, 30(2), 521 – 538.

Rubin, D.B. (1987) Multiple Imputation for Nonresponse in Surveys. Wiley, New York.

Rubin, D. B. (1996) Multiple Imputation After 18+ Years. Journal of the American Statistical Association, 91 (434), 473-489.

Schafer, J. L. (1997), Analysis of incomplete multivariate data. London: Chapman & Hall.

Scheubel, B, Winter, J. (2008) Rente mit 67: Wie lange die Deutschen arbeiten können und wollen. ifo Schnelldienst 2008(1), 26-32

Schnell, R. (1997) Nonresponse in Bevölkerungsumfragen. Lekse + Budrich, Opladen.

Schräpler, J.-P. (2003) Gross income non-response in the German Socio-Economic Panel: Refusal or don't know?, Schmollers Jahrbuch, 123, 109 – 124.

Schräpler, J.-P. and Wagner, G. G. (2001): Das Verhalten von Interviewern - Darstellung und ausgewählte Analysen am Beispiel des "Interviewerpanels" des Sozio-Ökonomischen Panels. Allgemeines Statistisches Archiv, 85, 45-66.

Schunk, D. (2006) The German SAVE Survey: Documentation and Methodology. MEA Discussion Paper 109 – 2006, Universität Mannheim.

Schunk, D. (2007) What Determines the Saving Behavior of German Households? An Examination of Saving Motives and Saving Decisions, MEA Discussion Paper 124 – 2007, Universität Mannheim.

Schunk, D. (2008) A Markov chain Monte Carlo algorithm for multiple imputation in large surveys. Advances in Statistical Analysis, 92(1), 101 - 114.

Sheldon, C. (2006) Savings Behavior and Asset Choice of Households in Germany. Evidence from SAVE 2003 and 2005. MEA Studies 05, MEA, Universität Mannheim

Shorrocks, A. (1975). The age-wealth relationship: A cross section and cohort analysis. The review of Economics and Statistics, 57, 155 – 163.

Singer, E. (2002), the use of incentives to reduce nonresponse in household surveys, in: Groves, R.M., Dillman, D.A., Eltinge, J.L., Little, R.J.A. (eds.) Survey Nonresponse, Wiley, New York, 167 – 177.

Sommer, M. (2005), Trends in German Households' Portfolio Behavior – Assessing the Importance of Cohort Effects, MEA Discussion Paper 082-05, Universität Mannheim.

Statistiches Bundesamt Deutschland (2006) Mikrozensus. Qualitätsbericht. Statistiches Bundesamt, Wiesbaden.

Stephens, M.(2004) Job Loss Expectations, Realizations, and Households Consumption Behavior, the Review of Economic and Statistics, 86(1), 253 – 269.

Strotz, R.H (1955), Myopia and Inconsistency in Dynamic Utility Maximization. The Review of Economic Studies 23(3), 165 – 180.

Thaler, R. (1981), Some empirical evidence on dynamic inconsistency, Economic Letters, 8, 201 – 207.

Thaler, R., Shefrin, H.M. (1981) An economic theory of self.control. Journal of Political Economy, 89(2), 392 – 406.

Tourangeau, R., Smith, T.M. (1996) Asking Sensitive Questions. The Impact of Data Collection Mode, Question Format and Question Context. The Public Opinion Quarterly, 60, 275 – 304.

Wärneryd, K.-E. (1999), The Psychology of Saving, Edward Elgar, Cheltenham, UK.

Zeldes, S. (1989), Consumption and liquidity constraints: An empirical investigation, Journal of Political Economy 97, 305-346.