SONDERFORSCHUNGSBEREICH 504

Rationalitätskonzepte,
Entscheidungsverhalten und
ökonomische Modellierung

No. 05-22

Precautionary saving and old-age provisions: Do subjective saving motives measures work?

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August 2004

Financial support from the Deutsche Forschungsgemeinschaft, SFB 504, at the University of Mannheim, is gratefully acknowledged.

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First draft: August 11, 2004
slightly edited by Axel Börsch-Supan: 28 March 2005.

Abstract: The literature on precautionary saving provides contradictory views on the importance of precautionary saving. The *SAVE* data offer the possibility to generate some of the frequently used instruments known from the literature in order to measure the extent of precautionary savings. This paper compares the influence of these instruments on long-run and short-run saving measures. In addition, *SAVE* contains information on a broad range of saving motives. This paper uses these short-run and long-run savings motives to describe differences in savings, saving rates and wealth accumulation.

Keywords: household surveys; savings behavior

JEL classification: C21, D12, D91

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* I would like to thank Axel Börsch-Supan, Annamaria Lusardi and Hendrik Jürges for helpful comments. Financial support was provided by the Deutsche Forschungsgemeinschaft (via Sonderforschungsbereich 504 at the University of Mannheim) and the Deutsches Institut für Altersvorsorge (DIA).

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1 Introduction

The theory of precautionary saving has challenged and enriched the literature on consumers' behavior. Precautionary saving leads to consumption cut-backs and the accumulation of wealth to insure against several sorts of uncertainty or risk, the income risk being the most frequently stated (see, e.g., Deaton (1992), Carroll and Samwick (1998)). Lusardi (1998) emphasizes that, within the life cycle / permanent income model, saving and wealth are not only related to the first moment of income, but also to higher moments, especially to the second one (variance of income).

The empirical approaches to precautionary savings have to deal with a couple of major challenges all of which make it hard to disentangle and identify its quantitative effects. As briefly reviewed in Section 2, economic theory provides a good deal of foundations and predictions for household behavior.

In this paper, I will first take advantage of already used different empirical procedures to identify and quantify the precautionary savings motive. The *SAVE* data provide a variety of subjective measures for income uncertainty which have been used in the existing literature. As a next step, I adopt a new approach to map the importance of precautionary savings. I use short-run and long-run savings motives to describe differences in savings, saving rates and wealth accumulation. Even though these measures are also subjective and not quantitative like the ones used in Kennickell and Lusardi (2004), they can provide additional information explaining the heterogeneity in households' saving behavior.

This paper is organized as follows. In Section 2, I briefly reconsider the importance of precautionary savings and summarize different groups of the most important results along with problems to identify precautionary savings. In Section 3, I examine the two main variables of the *SAVE* data set concerning precautionary savings at hand: (a) the measure of subjective earnings variance and (b) the savings motives for precautionary savings and old-age provision (as an extended precautionary savings motive). Section 4 shows results for the two measures on wealth accumulation, while Section 5 leaves with some concluding remarks.

I will use the *SAVE* 2003 data random route subsample, since thereby I can circumvent possible sample selection problems; see Essig (2005) for a review of the different *SAVE* sample characteristics. Like in the Health and Retirement Survey *(HRS),* it is only the individual deemed most knowledgeable about the family's assets, debts, and retirement planning, who is asked questions on demographics, savings, housing, net worth and income of the family.

2 Precautionary savings: theory and empirical findings

The life cycle (Modigliani and Brumberg, 1954)-permanent income (Friedman, 1957) model [LCPI] has become the basic theoretical framework for analyses on saving. The theory has opened the door to many refinements over the years; and its importance has thus repeatedly been acknowledged over decades, see Meghir (2004) for an actual recognition. The fundamental insight of this model describes household consumption smoothed over the life cycle, which in turn implies that individuals spend more in earlier stages of the life and build up wealth in the middle part of the life cycle. The "underlying idea of the life-cycle hypothesis - that people save for their old age - is of course not new; nor is it Modigliani's own. His achievement lies primarily in the rationalization of the idea into a formal model which he has developed in different directions and integrated within a well-defined and established economic theory, and secondly in the drawing of macroeconomic implications from that model and in performing a number of empirical tests of these implications"[1]. The LCPI builds the basis for many empirical investigations; e.g. it has proved an ideal tool for analyses of the effects of different pension systems and the discussion whether an introduction of a general pension system leads to a decline in private saving. See Barro (1974 and 1978) and Feldstein (1974 and 1978) for a controversial discussion on this topic.

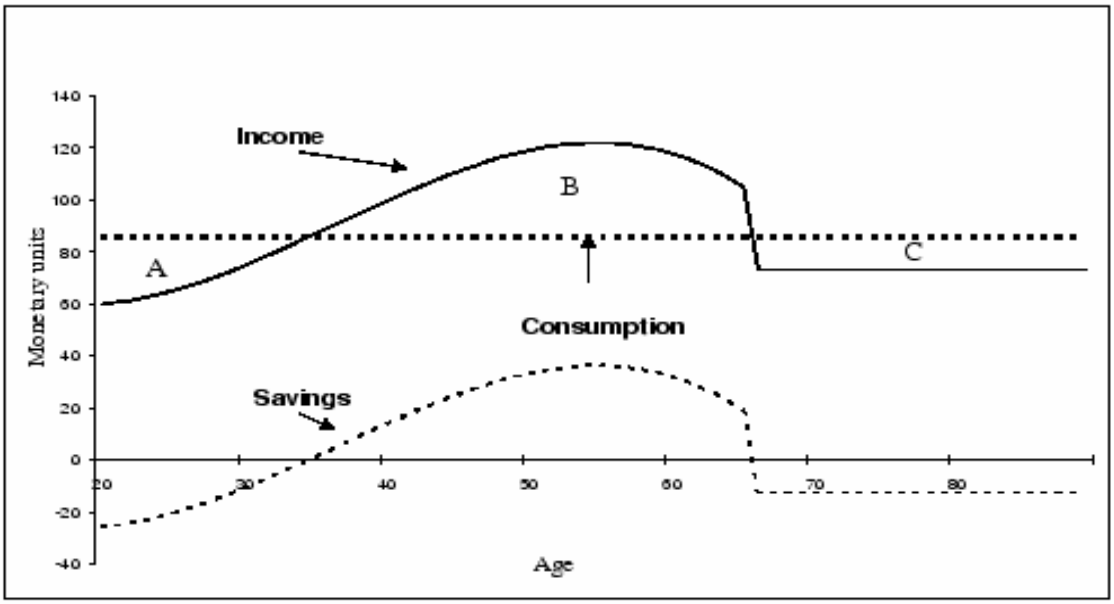
Figure 1 depicts the simplest form of the life cycle-permanent income model.

One of the extensions to the LCPI is the theory of precautionary savings. It says that savings are not only functions as an income reallocation over the life cycle, but also as an insurance against income shocks. This theory implicitly presupposes some classes of utility functions. Leland (1968), Sandmo (1970) and Kimball (1990) showed that degree of prudence depends on the third derivative of the utility function (and so a quadratic utility function cannot represent the precautionary savings motive since the third derivative is zero).

Figure 2 shows that savings depends on the range of the Y_u and Y_o. The degree of prudence depends of the third derivative of the utility function. If the third derivative is zero, the first derivative of the utility function is linear, and individuals will face no utility loss through income uncertainty, since $E(u'(Y)) = u'(E(Y))$.

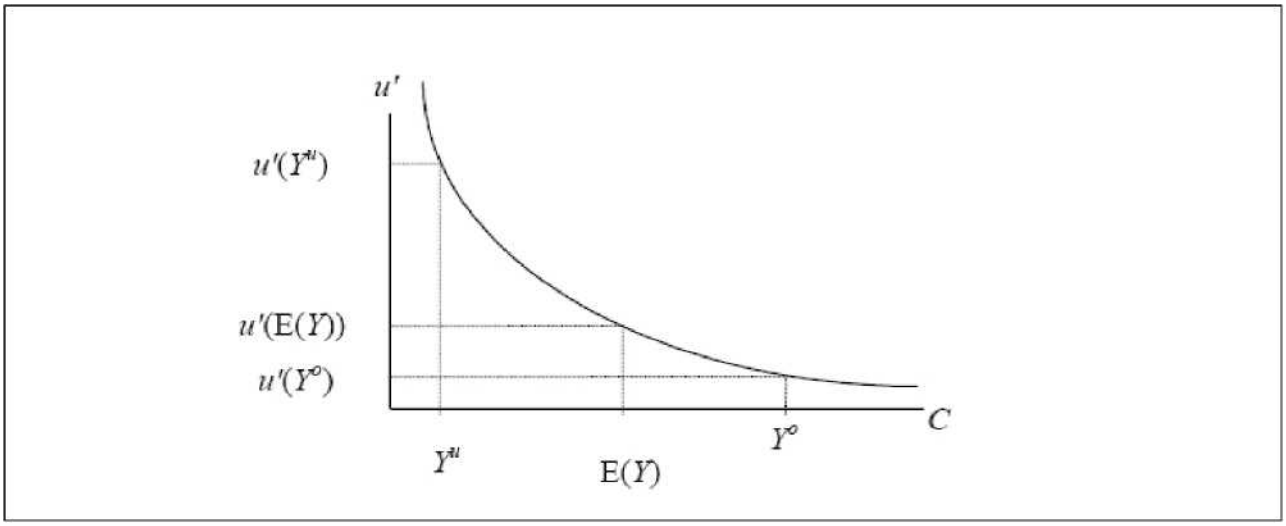
Figure 1: Income, consumer behavior, and savings during the lifespan

[1] Press Release: The Sveriges Riksbank (Bank of Sweden) Prize in Economic Sciences in Memory of Alfred Nobel for 1985.



Source: Börsch-Supan and Essig (2002).

Figure 2: Example for a two-period-model with a certain income *Y1* and uncertain income *Y2,* which can take on the two values Y_u and Y_o with a probability of 0.5



Source: Rodepeter (1999).

The inability of quadratic utility functions to model the precautionary motive leads to the more realistic modelling by the family of *constant relative risk aversion* (CRRA) functions.[2] The problem in assuming CRRA utility functions, which means skipping the problematic but convenient[3] assumption of quadratic utility is that closed form solutions can no longer be derived; see Zeldes (1989).

The basic trigger for the precautionary savings motive is that insurance markets are not existent or imperfect. The theory of precautionary saving from literature on consumer's behavior predicts that in this case, risk depresses consumption and increases the accumulation of wealth. Alternatively, households could try to hedge themselves by a social network like family / friends. Wealth accumulation thus can be less important if this social network is large enough and can easily be accessed. This would mean that one needs to distinguish who has access and who doesn't. Social Security represents another source of insurances. Two incentive problems for privately insuring against shocks by accumulation wealth accompany the presence of these insurances. Firstly, social security insurances tend to maintain a relative living standard (since the minimum level depends on the average working income); this means that the absolute insurance level rises with the productivity progress, allowing a higher living standard in a worst-case scenario. Secondly, if social security insurances are means-tested, incentives for wealth holding are lowered, see Hubbard et al. (1995).

Dreze and Modigliani (1972) have shown that consumption and portfolio decisions are not separable. But so far, many of the saving and portfolio choice models have been estimated separately. Heaton and Lucas (2000) find that business owners (taking a high income risk) have a lower probability to invest in stocks. In SAVE, business owners have a highly significant positive probability of owning stocks (probit results show marginal effects of about 14 to 15%, depending on specification).

2.1 Literature review

The literature on precautionary savings leaves us with quite mixed results. E.g. Skinner (1988) calculates precautionary savings up to 54% of total life cycle saving and that precautionary savings are higher when consumers are more risk averse and when borrowing constraints are more immediate, in accordance with Zeldes (1989). Other simulation results (Caballero (1991) and Gourinchas and Parker (2002)) studies do support these theoretical findings. Cagetti (2003) finds in his simulations that wealth accumulation is driven mostly by precautionary motives at the beginning of the life cycle, whereas savings for retirement purposes become significant only closer to retirement.

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[2] An isoelastic utility function $u_t = \frac{1}{1-\gamma} c_t^{1-\gamma}$ has the property of constant relative risk aversion $\left(\frac{u_t''(c_t)c_t}{u_t'(c_t)} \right)$ and constant relative risk prudence $\left(\frac{u_t'''(c_t)c_t}{u_t''(c_t)} \right)$ (cf. Kimball (1990)).

[3] in the sense of computability.

Browning and Lusardi (1996) and Kennickell and Lusardi (2004) list the main contributions to empirical evidence for precautionary saving; the results are rather mixed. More precisely, these papers can be grouped to have shown four different ranges of results:

1. Skinner (1988) and Dynan (1993) find little or no evidence for precautionary savings.
2. Guiso *et al.* (1992), Lusardi (1997, 1998 and 2000) and Arrondel (2002) report modest values for the accumulation of precautionary wealth using subjective risk measures.
3. Dardanoni (1991), Hubbard *et al.* (1995), Kazarosian (1997), Carroll and Samwick (1997 and 1998), Engen and Gruber (2001) and Carroll (1997), in contrast, find that precautionary savings produce a considerable share of wealth. E.g. Dardanoni (1991), using data on British households, found the average consumption across occupation and industry groups to be significantly lower when income variance is greater; he estimates that more than 60 percent of saving is due to precautionary motives.
4. Murata (2003) and Kennickell and Lusardi (2004) provide mixed results for different types of households each of which associated with different risk exposure.

2.2 Problems associated with the empirical assessment of the precautionary savings motive

The meanwhile more or less basic procedure for identifying the existence and degree of the precautionary motive in the empirical literature is to identify the relation between household wealth *Wh,* permanent income Y_h^P, a set of covariate control variables *Xh* typically including all sets of household variables (socio-economic variables like age, job variables and other characteristics) and some risk measure R_h*:*

$$f(W_h) = g(Y_h^P, X_h, R_h) \tag{1}$$

As mentioned in Kennickell and Lusardi (2004), the large range of estimates are due to differences in the data and the methodologies used. The two most important variables to deal with are wealth and risk, both very difficult to assess. In the following, I quickly review the problems mentioned in Kennickell and Lusardi (2004) associated with the assessment of these variables.

2.2.1 Wealth

The basic question associated with wealth is: which wealth measure should be used in estimations? Wealth consists of different components, which differ in terms of accessibility and liquidity. E.g. the total wealth measure in *SAVE* consists of 13 different wealth items (8 of them being financial wealth items with different liquidity). Typically, the largest share is

housing wealth, as Table 1 shows. Unconditional values confirm the typical positively skewed distribution: few large values, many small values, especially zeros.

Table 1: Shares of different wealth items

	Owner occ. housing	Other hous.	Business	Financial	Credits[a]	Other real wealth
Unconditional						
Mean	42.89%	3.61%	1.65%	50.28%	41.85%	1.57%
Median	26.53%	0	0	30.00%	0	0
Std. Error	1.57%	0.47%	0.34%	1.61%	13.07%	0.32%
Obs.	787	787	787	787	787	787
Conditional[b]						
Mean	83.56%	36.00%	32.42%	57.02%	171.53%	16.88%
Median	91.35%	30.95%	23.70%	77.21%	26.59%	7.53%
Std. Error	0.99%	2.60%	4.60%	1.67%	52.59%	2.87%
Obs.	404	79	40	694	192	73

[a] Total wealth was calculated gross of credits (which makes look shares larger than they are since the denominator is thus larger). Therefore, shares, neglecting credits, sum to 1.
[b] Conditional on having positive values of that share; this means that medians are larger than 0.
Source: SAVE 2003 Random sample.

As emphasized in Kennickell and Lusardi (2004), business owners might cause problems for assessing the precautionary motive since their behavior differs largely from the rest of the sample. In *SAVE* 2003, they hold 23.0% of total wealth, though representing only 4.7% of the sample (problem: 5.3 % nonresponse to question of business wealth ownership.) There are 40 observations for wealth if respondent is a business owner, 1109 altogether. Numbers are not as high as in Gentry and Hubbard (2000) where this group accounts for 42.1%; but in their sample, 11.4% are business owners.[4]

The quintessential point here is that it might be highly misleading to neglect certain wealth categories and simply concentrate on liquefiable financial assets like saving accounts, since that procedure might neglect a much higher stock of more long-run precautionary wealth. This, again, recurs the question of the time horizon of precautionary savings, or, more principally, what exactly is precautionary savings? Against which risk should it protect / insure households?

2.2.2 Risk measurement

As mentioned in the introduction, precautionary savings are supposed to be some sort of replacement for incomplete or even non-existing insurance markets. Much of the typical long-term risks are normally covered by compulsory insurance plans, like the insurance against the longevity risk (public and private pension systems / occupational pension plans, and also the public long term care insurance), and insurances against health risks (public and private health

insurances). Also many of the more short-run risks are typically insured by compulsory public insurances, like unemployment insurance. See Börsch-Supan (2004) for a review of the history, negative incentives and possible threats to the German social security system.

So the question remains, which risks does the household need to insure against and build up a wealth stock to rely on. Long-run and mostly unforseen shocks are those affecting the life time income path (cf. Figure 1) due to job loss or wanted, undesired changes to a less-paid job, wealth shocks, premature death of he bread-earner, or the political risk of pensions, only to name some. This would change the curvature of life time income thus lowering the possible permanent consumption path. A second risk would be the mentioned transitory short-run income risk proposed by Friedman (1957).

These reasons lead to the usage of income risk most common in the empirical literature on precautionary savings.

The empirical problem, though, remains. What are good measures for income risk? This is typically proxied by the variance of total income. Still, there are two objections to this approach. (1) Caballero (1991) and Browning and Lusardi (1996) point out that the calculated income variation could be well-known by the respondent and hence already been insured against privately. (2) Measurement errors could possibly wrongly be identified as transitory income in panel analysis.

To circumvent the mentioned problems, one can use subjective measures for income and risk. Of course, as with all subjective data, the door is open to all sorts of cognitive problems. Do respondents process the information given in the questionnaire well? There is now an extensive literature in survey research on cognitive processes that generate survey responses and on pitfalls that should be avoided in survey design; Sudman *et al.* (1996) and Tourangeau *et al.* (2000) provide overviews of the literature on survey response behavior and question design in cognitive and social psychology. Cognitive issues in households' reports of financial variables, in particular with respect to reports of household income, are discussed by Moore *et al.* (1999).

The longevity and health risk are risk factors less frequently used in empirical studies, mostly for the reason of a lack of available data, and for the existence of the above mentioned social security systems. I will use two subjective variables rudimentarily covering these two risk factors, see Section 3.1.

[4] Same measurement: when respondents answered to owning business assets, they were classified as business owners even if the business ownership value is zero or below zero.

2.2.3 Permanent income

Another possible challenge is the determination of the third variable entering Equation 1: how can the household's permanent income *YhP* be identified? In panel studies, this issue raises possible identification problems already mentioned (to differ between measurement error and transitory income). But in cross sectional analysis, data are not available but for one single income observation which requires a rather different approach. King and Dicks-Mireaux (1982) propose a measure of permanent income which can be calculated from cross-sectional data which was also used by Starr-McCluer (1996) and Kazarosian (1997)[5] to measure the effects of health insurances on precautionary savings. Since I will use the *SAVE* RR 2003 subsample only leaving me with one cross-sectional data base I will follow this approach and therefore quickly review the basic ideas of this measure.

Permanent income is modelled as function of $\mathbf{Z_i}\gamma$, a vector of observable characteristics with γ, the associated parameter vector, and *si* being an unobservable variable measuring characteristics (skills, luckiness, power), and *c(Ai)* controlling for technical progress and, therefore, sets younger individuals better off (cohort effect).

$$\ln Y_i^{Perm.} = \mathbf{Z_i}\gamma + s_i - c(A_i) \tag{2}$$

Permanent and current income differ for two reasons: (i) the existence of an age-earnings profile and (ii) the transitory earnings component *uit* such that

$$\ln Y_i^{Current} = \ln Y_i^{Perm.} + h(A_i - \overline{A}) + u_i \tag{3}$$

where *h* represents the age-earnings profile, restricted to be constant across the population. Inserting 2 into 3 gives the estimation equation

$$\ln Y_i^{Current} = \mathbf{Z_i}\gamma - c(A_i) + h(A_i - \overline{A}) + s_i + u_i \tag{4}$$

Since the earnings profile and the cohort effect cannot be separately identified in this equation, King and Dicks-Mireaux (1982) suggest to use data from outside the sample. I will use the wage index development[6] in Germany separately for respondents and for their partners in the regression, assuming that every cohort enters the labor market at age 20. With the parameter estimates 7 and *c* it would be possible to impute $\ln Y_i^{Perm.}$ if it was possible to disentangle the error term s_i to receive the individual-specific effect s_i. King and Dicks-Mireaux propose the share of $s_i + u_i$ of the total error term to be 0.5 after considering

[5] This work expands this model using panel data.
[6] Alternatively, Kapteyn *et al.* (2004) use GDP per capita as a cohort productivity measure.

longitudinal studies on earnings. Therefore, the measure of of permanent income I will use here is the predicted value *Yi* from the earnings regression plus half of the difference between observed and imputed income.

I use the permanent income imputation only for households which have at least one member not yet retired. The reason for this is that pension income, in contrast to permanent *earnings,* is determined once a person has entered retirement.[7] One could have, though, used all households since pensions represent claims which were earned during the working life thus reflecting a fraction (typically about 70% of net earnings, see Braun *et al.* (2000)) of working life permanent earnings.

The *SAVE* 2003 RR sample has a rather high fraction of female respondents. This might cause a problem if the wage earner is the husband, and thus regressing reported household income on a set of regressors to use the predictions from this regression as a proxy for permanent income should not only include the respondents' characteristics, but also the partners'.

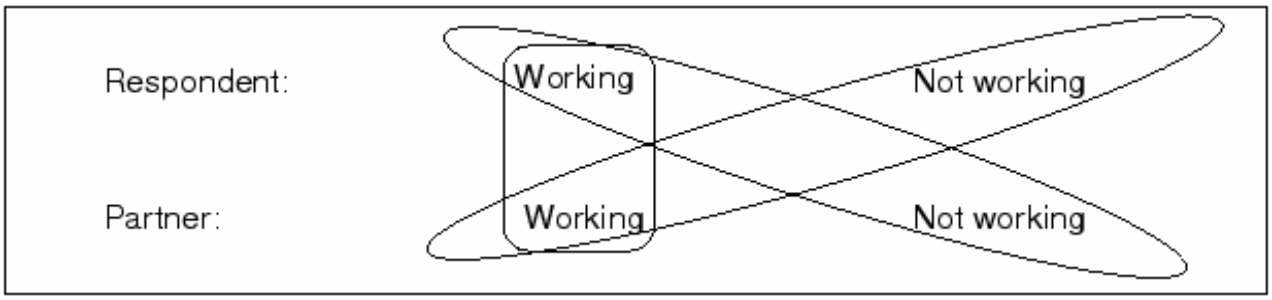
An alternative would be to consult an external data source, as proposed by Browning *et al.* (2003) for improving the precision of consumption question by asking a non-exhaustive list of consumption questions in a survey and imputing total consumption using the country's official consumption and expenditure survey; in this case, the German Income and Expenditure Survey *(EVS)*. For expenditures, this is done in Essig (2004), Chapter 6. For income, this is due to further research.

At the time being, I will content myself with the within-survey imputation of permanent income using the prediction of household earnings from a regression as proxy. As regressors I choose a set of respondent and, since I cannot separate incomes for each earner, of partner characteristics. This is especially important since the *SAVE* questionnaire does not seek explicitly the household head as respondent which typically is the main income earner, see last paragraph in Section 1.

I include all households if either the respondent, the partner or both are fully employed. This is depicted in Figure 3. All variables are therefore interacted accordingly to this selection, e.g. partner's variables are set to zero if there is no partner.

Figure 3: Household selection for permanent income regression

[7] The main sources of variation of pension income is policy interventions like, e.g. the shift from gross to net earnings indexation, or changes in household composition (divorce or death of the partner).



The chance of losing observations due to missing values in one of the variables is rather high because of the large number of regressors. This can lead to more missing observations of predicted permanent income than observed earnings. Two correction steps follow: (1) I replace those missing predicted missings of $Y_{HH}^{Perm.}$ with the observed values of $Y_{HH}^{Obs.}$ (2) Also, since nothing restricts predicted income values being positive, I replace all negative predicted values by the observed household earnings. Regression results are listed in Table 7. I used two specifications, one where absolute marginal effects are modelled constantly (absolute income as dependent variable), and another where percentage marginal effects are modelled constantly (income in logarithm), which is the more common estimation procedure in the literature. The single elements of the fourth-order age polynomials are more or less insignificant. Still, they are jointly highly significant, tested separately for the respondent's and the partner's age.

2.2.4 Further problems to deal with

There are other sources of problems associated with the measurement of precautionary savings I will only briefly discuss. All the following examples are thoroughly highlighted in Kennickell and Lusardi (2004), so I refer to that source for further reading. The arguments are mentioned here to show possible problems in the following estimation procedure.

Liquidity constraints can affect individuals differently, which may lead to different wealth accumulation other things being equal since households could borrow in emergency situations.

Restrictions on the functional form can lead to difficulties if it systematically excludes certain groups of households. E.g. if one restricts the function *f(W)* in Equation 1 being logarithmic, this automatically excludes zero and negative wealth (indebted households). For transformation: see Burbidge *et al.* (1988) who revisited the inverse hyperbolic sine function proposed by Johnson (1949); MacKinnon and Magee (1990) who developed them further and Carroll *et al.* (2003) for an application of wealth data.

Unfortunately, there exist no embedded ado-files containing the Inverse Hyperbolic sine function transformation ML-implementation. There seems to be a group of people working

on it and this implementation is "in the pipeline"[8], so it can and should be used in further research. The transformation parameter θ from the inverse hyperbolic sine transformation of y is

$$g(y,\theta) = \frac{\ln\left[\theta y + \left(\theta^2 y^2 + 1\right)^{\frac{1}{2}}\right]}{\theta}$$

$$= \frac{\sinh^{-1}(\theta y)}{\theta} \qquad (5)$$

Carroll *et al.* (2003) estimated the parameter θ to be 3.87 in a regression using Equation (5) for W for SCF 1983 data. I will compare three values for θ*:* 1, 2 and 3.[9] Figure 4 shows the transformed wealth values for θ*:* 1, 2 and 3 and also for θ = 1.05 and *ln(wealth).* The transformations for the θ = 1.05 and the ln function nearly coincide (for strictly positive wealth values);[10] since the ln function is the preferred transformation in the literature, I will use 1.05 for θ in all transformations. I stress here that normally, functional form restrictions are typically set without further mentioning. The most common values for θ*,* for the Box-Cox transformation $(y^{\theta} - 1)/\theta$ are $\theta = 0$ and $\theta = 1$, giving the log and the linear form, respectively. Assuming $\theta = 1$, further restrictions imposed in wealth regressions are: *lnW* using only $W >$ \$4000 (Diamond and Hausman 1984), lnW/Y^P using only $W >$ \$2500 (King and Dicks-Mireaux 1982), ln[W - min(W, 0) + 1] (Starr-McCluer 1996, Carroll and Samwick 1997 and 1998); in the first two cases, the authors confronted the selection problem by the Heckman correction method.

While there has been an extensive discussion of the importance of macro shocks in the estimation of Euler equations,9 this topic has been largely ignored in the estimation of precautionary saving. However, this problem is important in this context as well. It is not possible to estimate the extent of precautionary accumulation using a single cross-section of wealth data. The problem may be best understood by using a simple example. Suppose that, because of a national housing market bust, the wealth of home-owners was substantially reduced. Suppose further, as it is not unreasonable, that home-owners are less likely to face high earnings risk. Simple regressions of wealth on income risk lead to biased

[8] 10th UK Stata Users Group meetings: Abstracts Monday, 28 June 2004. "A comment on infrequency of purchase models in Stata" by Julian A. Fennema, j.a.fennema@hw.ac.uk, Centre for Economic Reform and Transformation, Heriot-Watt University.

[9] Using l'Hopital's rule it is easy to show that $\lim_{\theta \to 0} g = y$.

[10] For smaller wealth values, the difference is slightly larger; the higher the values, the smaller the gap.

estimates of the extent of precautionary accumulation.

In cross sectional analyses, macro shocks may cause problems due to biases. E.g., if the stock market went up, and if stock owners are more likely to have risky earnings, then estimating the extent of precautionary wealth accumulation possibly leads to biased estimates. This argument also holds for portfolio choice models.

Apart from the precautionary motive, other reasons may be and presumably are present which also account for a great deal of the wealth accumulation. The two most prominent long run motives certainly are the wealth accumulation for old age (which I argued before can also be viewed as a long run precautionary motive), and the bequest motive. But though a substantial amount of empirical evidence contradicts the predictions of the life-cycle model, this does not necessarily support the latter motive. Still, especially in Germany, the life-cycle profile of discretionary household saving is rather flat, much flatter than, e.g., in the US. The question emerges why saving remains positive in old age, even for most low income households. This is particularly puzzling given the generous pensions and health insurance in Germany, and still, German households do not seem to draw it down but even accumulate real and financial wealth. This is why Börsch-Supan *et al.* (2001) refer to that observation as the "German savings puzzle."

Another important theoretical insight concerning factors determining savings and wealth accumulation are time and risk preferences[11]. Even if households face the same source and amount of risk, they might completely differently deal with it. Risk preferences can be inferred domain-specifically, see Weber *et al.* (2002). They also find that situational characteristics as well as person-centered characteristics jointly influence risk-taking. For precisely assessing preferences, a relatively large number of domain-specific risk questions is needed which normally prohibits the implementation of these questions in general purpose surveys. E.g. the *HRS* experimentally contained risk and preferences questions; the estimates of the coefficient of risk aversion, varies substantially, see Barsky *et al.* (1997).

Another threat to the validity of estimates is the possible self-selection into safe jobs. Kimball (1990) or Lusardi (1997) refer to this as the prudence motive[12]; this causes an endogeneity problem since people choose occupations on the basis of their degree of risk aversion.

[11] Or risk attitudes.

[12] Kimball (1990), p.54, gives 'the name "prudence" to the sensitivity of the optimal choice of a decision variable to risk..[] The term is meant to suggest the propensity to prepare and forearm oneself in the face of uncertainty, in contrast to "risk aversion", which is how much one dislikes uncertainty and would turn away from uncertainty if possible.' And, on the same page, in Footnote 4: 'In different contexts, "prudence" will have different meanings. In the paradigmatic example of the consumption-saving decision under uncertainty, "prudence" represents the intensity of the precautionary saving motive.'

3 Household savings and measures for precautionary savings

This section describes the measures used to determine the importance of precautionary savings. In brief, theory tells us that precautionary savings is mainly driven by income risk. I will compare the effects of three different sets of measures for identifying precautionary savings.

The first set are respondents' expectations concerning the development of three domains (Germany's economic situation, the own economic situation, and the own and partner's health situation); more specifically, included in *SAVE* are also questions concerning the near future (job, labor income, inheritances). Additionally, I use information about the income development over the past five years (level and fluctuations, measured on a scale from 1 to 5). These questions of the *SAVE* questionnaire were influenced by Kotlikoff (1989) who states that new surveys are needed covering two issues to empirically assess precautionary savings: (1) implicit family insurance agreements and (2) the extent of subjective uncertainty.[13]

The second set contains the job variables available for the household and construct risk classes. Lusardi (1997 and 1998) argues that jobs might be selected by risk preferences since risk averse households would have a higher probability choosing a safer job. In that case, the estimated coefficient would be biased downwards. A crude instrumental procedure would be to use regional information about unemployment rates, assuming that households do not choose the living region by its unemployment rate. While this assumption might be plausible for some countries, it is definitely problematic for Germany with its extreme east-west slants of employment and the still ongoing migration of younger households caused by that. Nevertheless, I will use this approach for comparability reasons to other papers.

A third set of measures are the direct questions for savings motives implemented in the *SAVE* questionnaire. I will analyze what household characteristics influence these motives, and in a second step, I will test whether these motives are a proper way to map savings and wealth accumulation.

3.1 Subjective measures

A different approach to disentangle the influence of savings motives are subjective measures capturing the individual assessment of the different motives. Since empirical work is in nearly

no domain free from any problems, these measures also entail two types of potential problems, see Jürges (2001). The first one is misreporting of the motives, consciously or unconsciously. There might be errors in different stages of the cognitive process involved in answering to survey questions. Apart from having problems with allocating probabilities or importance weights to questions, there might also be the problem of privacy effects and social desirability, see Tourangeau *et al.* (2000) for an overview or Stocke (2001) for a study from social psychology. The second problem might be the endogeneity of the wealth formation processes and the savings motives.

Expectations for the future which are held less concrete than income questions were also included in the *SAVE* questionnaire. They cover three domains, Germany's economic development (macro level income), own economic development, own and partner's health development. Figure 6 shows the histograms for each of the four variables. Partner's and own health development are nearly congruent; if health is age-dependent and the age differential between couples is not too large, this is also rational. Since the partner does not file for that question himself, a more simple explanation is that respondents simply assign the same value for both if the health differential is not too large. A little bit more striking is the pessimism concerning Germany's development compared to the own one, or putting it differently, the overconfidence for the own situation rating macro and micro risks differently on a larger scale.

As mentioned in Section 1, the *SAVE* data contains, additionally to objective measures, expectation measures for different domains. Concerning earnings expectations, two questions are included. The first one asks for the self-reported probability[14] of a net income raise in comparison to the previous year for the respondent and his/her partner. The second question asks for expectations concerning the employment situation (exactly, about how probable it is that respondent and/or partner will become unemployed in next year). Additionally, as a third variable, I use the self-assessed variable measuring the probability that respondents receive an inheritance in the following two years.

Since the *SAVE* questionnaire measures income and savings on a household basis, the single probabilities for respondents and partners have to be combined to the joint probability that at least one of self/partner is affected:

$$prob(X)_{household} = prob(X)_{respondent} \text{ v } prob(X)_{partner}$$

[13] One of the first surveys covering a subjective probability question of earnings was the 1 989 Survey of Household Income and Wealth *(SHIW),* run every two years by the Bank of Italy. It was established in 1965. It is a series of independent cross sections, including a small panel component. See Guiso *et al.* (1992). Another data set which implemented subjective probability questions was the Health and Retirement Survey, *(HRS).* These data were used in Lusardi (1998).

[14] Probabilities were given as 10%-steps on a scale from 0 to 100%.

$$= 1 - \left\{\left[\left(1 - prob(X)_{respondent}\right)\right] \times \left[\left(1 - prob(X)_{partner}\right)\right]\right\} \quad (6)$$

The variance of net income can directly be computed by the household measure (see Equation 6) using the corresponding values from the first two columns of Table 2 and the income variance expression $p(1 — p)(1 — \alpha)^2 Y^2$ where α is the replacement rate in case of job loss, which is 67% if person has at least one child and 60% without children corresponding to the definition of children after the tax law (§32 EStG).[15]

Table 2: Subjective probabilities for job loss, income raise, and inheritances

	Jobloss[c]		Income raise		Inheritance within 2 years	
	Respondent	Partner	Respondent	Partner	Respondent	Partner
Zeros	61.0\% (594)	62.0\% (490)	65.8\% (1438)	66.48\% (936)	89.56\% (1956)	89.8\% (1281)
Refusals	0.5\% (5)	1.0\% (8)	0.87\% (19)	1.3\% (19)	0.6\% (12)	0.6\% (8)
Mean perc.	14.6	12.9	13.0	12.5	3.5	3.6
N[a]	970[b]	782[b]	2165	1408	2172	1419

[a] Number of reported nonmissing values.
[b] If respondent or partner is not at least part-time employed and retired or unemployed, zero values will be imputed for further use.
[c] This question is identical to the one asked in the *HRS* and applies only if respondent or partner is at least partially employed.

The other two variables from Table 2 will be used directly as a crude proxy for some positive income risk, since it cannot be linked directly to current household's income. They do not contain information on the amount of additional permanent income (income raise) or wealth (inheritances), just on the probabilities.

Table 3 contains the corresponding values from the mentioned variables measuring respondents' expectations for three domains.[16]

Table 3: Expectations for economic and health situation development

	Economic Development		Health Development	
	Germany	Own	Respondent	Partner

[15] Of course, this is only an approximation since these replacement rates can only be claimed for a certain time horizon (6-32 months depending on years of contribution payment). Replacement rates drop to 57% / 53%of a generalized net income after that time period *Arbeitslosenhilfe.* This might cause biased estimates of the motive since the variance would be measured too low.
For simplification reasons and since the *SAVE* data set does not contain information on the age of the children, I define having children in the sense of the law if at least one child still lives in the same household. Also, since there are no information on the duration of unemployment in the data set, I settle for the *Arbeitslosengeld* (67% / 60%) replacement rates.
[16] The exact wording of that question was: "We would now like to know a little about your views on future developments. Please indicate, according to a scale of 1 to 10. 0 means very negative 10 means very positive. (a) The economic development of Germany (b) Your own financial situation (c) Your own health situation (d) The health situation of your partner"

Zeros Refusals	17.7% (387)	5.0% (110)	1.8 % (39)	1.1% (15)
Median value[a]	0.6% (13) 3	0.7% (15) 5	0.6% (14) 7	1.0% (14) 7
N	2171	2169	2170	1413

[a] Median instead of mean values are reported since values are measured on an ordinal scale.

Table 4 lists values for the measures on past income development.[17] These two questions have been asked within the drop-off part of the questionnaire.

Table 4: Assessment of past income development

	N	Percent		N	Percent
significantly better	215	10.27	Fluctuate significantly	535	25.8
slightly better	363	17.34	Fluctuate slightly	868	41.85
about the same	731	34.91	Not fluctuate at all	671	32.35
slightly worse	415	19.82			
significantly worse	370	17.67			
Refusals	25			45	

In Table 5 ordered probit results for the unemployment probabilities are shown. I included respondent's characteristics for partner's probabilities to check whether they might be connected or even dominate partner's characteristics in their explanatory power. This is obviously not the case. Past unemployment is highly significant, especially in the regression for partner's probabilities.

There is one major problem with the reported subjective probabilities of unemployment, income change and inheritances, and that is the time horizon. In the first two cases (unemployment and income change), the time horizon is only about 6 months (since data were collected in June 2003, and the questions ask for changes until the end of the current year), while for inheritances, the time horizon is 2 years. First of all, respondents might have problems of adapting exactly to the time horizon given. Secondly, the short time horizon might make it difficult to extend the measure of uncertainty to human wealth uncertainty (see Lusardi (1997)). Thirdly, zero values were often given as answers to that question which might be due to the fact that most labor contracts are already determined for the given time period and respondents don't face any uncertainty for the given period. Guiso *et al.* (1992) propose two assumptions to estimate the effect of uncertainty on consumption and wealth accumulation: (1) the degree of persistence in the income generating process is identical for all households and (2) the prob-ability distribution from which earnings are drawn is time-invariant. The second

argument, though, might interact with the objection mentioned above that labor contracts might already be determined for the concerning time period, but undergo further negotiations in different points of time.

3.2 Environment measures

Apart from the subjective measures in Section 3.1, it is possible to construct a risk variable constructed by the job risk information contained in the job variables available in *SAVE*. Lusardi (1997) shows that saving rates are more or less independent from occupations using the 1989 *SHIW* data. Table 6 shows tobit and OLS regression results for gross savings and saving rates[18]. Interestingly, having a riskier occupation like freelancers or a safer like civil servants do not show different savings behavior from the basic occupation category, employees. This is not the case for self-employed respondents, whose saving rates are significantly higher. This might be due to the fact of a higher polynomial degree of the income function which is not mapped here. I therefore also included a dummy variable for net household income larger than 10,000 € which turned out to be negatively significant, but it does not take away explaining power of the self-employed dummy. I also controlled for limited job contracts (not reported in Table 6), but the coefficient is totally insignificant.

The findings of Table 6 are generally in line with results from Lusardi (1997), Skinner (1988), and Jappelli and Pagano (1994).

These results suggest that a construction of risk index by occupation characteristics is little promising. I instead follow the procedure in Lusardi (1997) which in turn was motivated by Carroll (1992) and Engen and Gruber (2001) to use regional information on unemployment since unemployment is one of the major sources for income variation. Table 8 lists the available unemployment data for the 16 German states. There are two minor differences to the *SAVE* data states: (1) Berlin is, in contrast to official data, still separated in Berlin-West and Berlin-East in *SAVE*. (2) Rheinland-Pfalz and Saarland are pooled in *SAVE,* so I used the average of the unemployment rates weighted by unemployed persons for these two states (which then is 8.1%). The income variance will be constructed as in Section 3.1 ($p(1 — p)(1 — \alpha)^2 Y^2$) where p is the states' unemployment rate. p will be set to zero for respondents who are either civil servants, retired or otherwise not working (unemployed, housewife, student etc.).[19]

[17] The exact wording was: "Is your income situation, compared with five years ago (a) significantly better (b) slightly better (c) about the same (d) slightly worse (d) significantly worse?" This question was followed by: "During the last five years, did your income (a) Fluctuate significantly (b) Fluctuate slightly (c) Not fluctuate at all?"
[18] Gross savings were the direct savings measure given by the respondents and not corrected for net credit uptake / downpayments for the reason of otherwise higher data loss.
[19] The results from the *subjective* probabilities for p will be discussed in Section 4.

The implied restriction in the use of these index unemployment rates is that individuals are equally affected by this unemployment risk.

3.3 Savings motives

Another set of possible variables to explaining savings and thereby wealth accumulation might be preferences, not only with regard to risk exposure, but also by the curvature of the utility function itself. Of course, determining risk preferences and the utility function is quite a hard task; individual heterogeneity causes the curvature of utility functions to vary between people. Schunk and Betsch (2004) suggest that there exists a relationship between the mode in which a person usually makes a decision and the curvature of the individual utility function. Their results suggest that individually stable traits might help explain observed economic behavior, such as portfolio choice and stock market decisions. Contributions in economic and psychological literature have investigated the question how people resolve decision problems under risk and uncertainty for quite a long time. Starmer (2000) gives a comprehensive review of the evolvement of the different approaches of both fields and their raising approach; see, e.g., the emergence of the whole field of behavioral finance, especially the prospect theory (Kahnemann/Tversky, 1979 and 1992), and their importance highlighted again by Laibson and Zeckhauser (1998).

As this discussion shows, the determination of individual utility functions is not trivial, though important. As a proxy for the utility function, the *SAVE* questionnaire also includes direct questions concerning the importance of a list of nine different savings motives.

Figure 5 shows histograms for the nine different savings motives. The bimodality is less pronounced for the saving motives precautionary savings ("unforseen events") and old-age provision (especially compared to "home"). The high fraction of zeros for repaying debts accounts for non-indebted households which in turn rate the motive for repaying debts low. Saving for buying a home is very bimodal; either households are interested in buying a house and therefore rate this motive high or mutatis mutandis very low.

How do respondents evaluate the savings motives and how do they compare to other findings? This is shown in Tables 9-11, where results are listed from ordered probit regressions for the nine listed savings motives. I do not comment each single regression or parameter estimate, since I will focus in the following on the two motives of interest in this context: the short run and long run precautionary savings (unforseen events and old-age provision). Only one comment to the regression for leaving bequests: it is obvious that the parameter estimate for children is highly significant reflection the accentuated bimodality of this saving motive

which certainly inheres in this motive's nature.

Business owners or older households were found significant when identifying the precautionary motive in Kennickell and Lusardi (2004), are *not* likely to allocate higher values to the precautionary savings motive (cf. Table 9). In fact, the dummy for business owners is not significant but for the regression of the bequest motive.

Kennickell and Lusardi (2004) use the 1995 and 1998 Survey of Consumer Finances. Included in this survey is also a question for savings motives; respondents are given a list of 12 savings motives (and additional items "no reason" and "have no money to save"), but in difference to *SAVE,* respondents should only name the most important savings reason. These were the "emergency", or precautionary motive (36.2%), and the old-age provision motive (32.4 %). *SAVE:* even though a direct comparison is not possible, since *SAVE* only provides an ordinal measurement of the savings motives, the results are very similar: the precautionary motive has, on average, the highest importance (on a scale from 0 to 10), followed by the old-age provision motive.

As described in Section 3.1, I will interact the savings motives with the financial decision maker dummy.

4 Estimation results for precautionary savings measures

This section presents results for each of the mentioned three groups of variables. Dependent variables are saving rates, savings and a relative wealth measure. In addition to disentangle the more 'abstract' or long-run saving goals from short ones for consumption reasons, I add another constructed variable to each of the regressions to control for this savings motive. In the *SAVE* questionnaire there is small set of questions included whether households seek to reach a definite savings goal.[20] It was then asked how large the desired saved amount is and by when it should be reached. The control variable I constructed from these three variables is whether a household has a savings goal, whether it should be reached within the next two years and whether its value is below € 20,000 to catch all planned larger expenditures (including holidays, cars etc.).

Concerning the use of the scaled variables discussed in Section 3, I circumvent the problem of ordinal measurement of the relevant variables by building three classes, the low one ranging

[20] The exact wording of that question was: "Do you or your partner currently have a fixed objective in mind for which you are saving at least 500 €? If yes, what it is your objective?" Nonresponse is very small (1.1%).

from 0 to 2, the middle one from 3 to 7 and the high one from 8 to 10.[21] This procedure was not chosen for the probability questions in which case I interpret the percentage classes cardinally to calculate the household probabilities.

I interacted the household probability for receiving inheritances within the next two years with the follow-up question whether this inheritance would at least slightly improve the income situation. This means that I will have 43 positive probabilities in the sample. In all specifications for wealth or financial wealth accumulation and saving rates, the expectation of significant inheritances is not significant. This can be linked to the discussion between Barro and Thaler (see Thaler 1990) whether agents rationalize and privately offset different wealth sources. In this case, the expectance of a windfall income like inheritances or bestowals should ceteris paribus reduce the wealth accumulation, which is not the case with the data at hand.

4.1 Estimation procedure

4.1.1 Dependent variables

For each of the three set of explanatory variables, I check their influence on saving rates, which is a rather short-run measure since it is only measured at one point in time and represents no accumulation over time; the second dependent variable is financial wealth relative to permanent income, and the third one is total wealth over permanent income, both latter dependent variables being transformed by the inverse hyperbolic sine function with $\theta = 1.05$.[22] For saving rates and relative financial wealth, I choose the Tobit regression model since only positive values are observed. Total wealth can be negative if the household is indebted.

4.1.2 Independent variables common for all regressions

In Tables 12 - 23, the first set of variables is unchanged for all regressions. Two things are worth noting. First, there is a pronounced age and income pattern. This is in line with the theoretical literature;[23] second, past unemployment, as a further risk proxy variable, is negative significant in all specifications. Third, the control variable whether the household aims achieving a savings target also has explanatory power in all regressions. Fourth, as proxy variable for risk preference or tolerance, whether or not the household has a private occupational disability insurance, is significantly positive in most of the regressions. Fifth, occupation variables are only partly significant for self-employed. Civil servants, who face a significant lower occupation

[21] This classification was chosen such that at the low and high class comprise the same amount of values. See Börsch-Supan and Essig (2003) who used the same classification.
[22] Cf. Section 2.2.4.
[23] Keeping in mind, however, that the findings are based on cross-sectional data thereby ignoring cohort effects.

and income risk, do not show different financial behavior to employees.

4.2 Subjective measures

4.2.1 Development variables

Tables 1 2 - 2 3 show that the macro level expectations (Germany's economic development) provide insignificant results for all dependent variables regressions but for saving rates where pessimistic beliefs lead to *smaller* saving rates. In contrast, the own development beliefs are linked to financial behavior. Optimistic respondents show higher saving rates and higher financial wealth accumulation, while the opposite is true for pessimistic respondents. This is clearly in contrast to the classical vision of any precautionary savings argument from Section 2 as long as the causality is correctly captured here. If, in contrast, respondents belief that the own economic situation will be better in the future *since their financial background due to wealth accumulation* is better, then estimates are biased. In some specifications, the same is true for respondents' and partners' health situation expectations. If these questions are judged more optimistically, this gives raise to higher saving rates and higher wealth accumulation. This finding would support the hypothesis by Börsch-Supan and Stahl (1991) that households might be consumption restricted due to age-related health problems. If in contrast, households do not feel that these health restrictions might take place (or not *that* badly as primarily expected), wealth accumulation should be higher to provide funds for the unrestricted consumption. On the other hand, a high wealth accumulation could open possibilities for better health care measures leading causality in the opposite direction. Given the (still) generous German health care system, I discard the latter hypothesis.

4.2.2 Income uncertainty

The effect of income variation and development variables and their effect on the set of dependent variables are listed in Tables 15 - 17. These explanatory variables are partially only significant in the saving rates regression. Again, results are counter-intuitive. If income development was positive in the past five years, saving rates are *higher,* and also, if income was highly volatile and therefore more risky, saving rates are *lower.* If a household would face significant changes to its economic situation if, e.g., one or both members would finish schooling and start their working life, this would be comprehensible. In nearly all other cases, these findings would contradict the above mentioned theoretical findings.

The variance of net income, which proved to be significant in Lusardi (1998), is insignificant for all three tested dependent variables. An explanation for the different findings might be that

in Germany, the shock on the permanent income might be lower than in the U.S., since the replacement rate, α, is higher in Germany. The so-called *Hartz IV - reform* can in this case been seen as a natural experiment. This also points the way ahead to reconsider this variable with the then available *SAVE* 2005 data.

4.2.3 Job risk

The proxy variable for job risk measure, the state unemployment rate, is significant in the Tobit regression for saving rates (see Table 18), but has only a very small effect. In contrast, it is insignificantly negative for relative financial and total wealth (Tables 19 and 20).

4.2.4 Savings motives

Tables 21 - 23 show Tobit and OLS estimates for saving rates, relative financial and total wealth. The precautionary savings motive is, in all three regressions, strongly negative significant if the motive is rated low; when it is highly rated, respondents do not behave statistically different to the median rated motive group. The old-age provision motive is insignificant in all regressions. Interestingly, the self-estimation of living longer than some self-estimated average does not alter financial behavior significantly.[24]

4.2.5 All variables

Table 24 includes all discussed sets of subjective variables. The identical block of other variables used in previous regressions was also applied here, but is not shown in the table for obvious reasons. The basic patterns prove to be stable when including the additional sets of variables. Still, the savings motive for unforseen events is, when ranked high, now significant in the saving rates regression.

5 Conclusions

The capture of a short-run or long-run precautionary savings motive is empirically a hard task. I approached this challenge by three different sets of variables.

1. Expectations for the future: A negative evaluation of the own or the economy's economic future situation or health situation might be the reason for households' increased need to insure themselves - by higher savings or capital formation - to mitigate a negative development. The results contradict this hypothesis.

[24] The relative life expectancy is the following. 65.1% belief to live as long as the average, 22.4% belief to live longer and 12.5% to live shorter than the average. These numbers only slightly compare to surveys about self-judgement for driving capabilities or being a good professor (better than the average) where these numbers typically reach about 90%.

Households with low expectations for their own economic development have significantly lower saving rates, and relative financial and total wealth. Expectations capturing the job risk (by building a variance variable which measures the household's risk of unemployment) show no significant effects, while income development variables support the findings for economic development expectations: a *positive* development increases saving rates, while a *higher* volatility of past income reduces saving rates.

2. Environmental situation: Substituting the expectations variable for job risk by local unemployment rates (which probably are not disaggregated enough) shows a positively significant effect for saving rates, controlling for East Germany. As for occupation variables, which are included in any regression specification, self-employed have a higher saving rate. Attribution this to job risk seems difficult for two reasons. First, the dummy for self-employed might only produce a spline for the influence of income since typically self-employed have a monthly income above the median. Second, a dummy for retired households is also positive - the income risk for retirees rather lies in the development of the Social Security system. One could argue, though, that retirees have higher saving rates for health risks, but as seen in the specifications including expectations for health development, the health expectations dummies are insignificant while the dummy for retirees maintains positive significant.

3. Savings motives: The short-run precautionary savings motive for unforseen events shows the expected negative coefficient if the motive is ranked unimportant, but is insignificant when ranked important[25]. The long-run precautionary motive, old-age provisions, is positive significant when ranked important in the saving rates regression, but insignificant in the other two regressions (relative financial and total wealth). Expectations concerning the relative life expectancy have unexpected coefficients or are insignificant.

By using three different dependent variables, one can see that the evaluation of the precautionary saving motive is not homogeneous. Within one set of independent variables, the coefficients change when applying each set in the estimation of the three variables saving rate, relative financial and relative total wealth.

[25] relative to the median group.

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Tables

Table 5: Ordered probit results for future unemployment probabilities

	Prob. job loss respondent		Prob. job loss partner	
	Coef.	$P>z$	Coef.	$P>z$
Respondent				
Permanent income / 10000	**-3.436**	0.006	**-3.551**	0.052
Permanent income / 10000 sq.	2.475	0.142	3.266	0.146
Age/10-2.162	-2.162	0.479	-6.273	0.141
Age / 10 sq.	0.780	0.456	2.134	0.132
(Age / 10) cub.	-0.121	0.423	-0.308	0.123
(Age/10)^4	0.006	0.412	0.016	0.122
# inc. sources	-0.043	0.314	0.017	0.744
Secondary school (D)	-0.095	0.362	50.36	0.667
Graduation diploma (D)	-0.208	0.166	-0.228	0.238
University degree (D)	-0.076	0.608	0.004	0.984
Kids (D)	**0.409**	0.005	0.117	0.522
Kids living in same house (D)	-0.211	0.102	-0.035	0.813
East Germany (D)	**0.228**	0.045	0.114	0.409
Job: blue collar (D)	0.081	0.496	0.068	0.688
Job: civil servant (D)	**-0.960**	0.000	0.008	0.973
Job: freelancer (D)	0.254	0.408	0.550	0.190
Job: self-employed (D)	-0.462	0.015	-0.050	0.822
Work parttime (D)	-0.111	0.379	0.050	0.725
Work little (D)	**-0.479**	0.010	-0.105	0.566
Female (D)	0.080	0.434	4.142	0.593
Past unemployment 1-6 months	**0.287**	0.009	0.171	0.189
Past unemp.> 6 months	0.047	0.705	-0.117	0.422
Partner				
# inc. sources			**-0.140**	0.090
Age / 10			-3.729	0.597
Age / 10 sq.			1.189	0.604
(Age / 10) cub.			-0.153	0.627
(Age/10)^4			0.007	0.654
Secondary school (D)			0.047	0.773
Graduation diploma (D)			0.010	0.972
University degree (D)			0.044	0.845
Job: blue collar (D)			-0.142	0.364
Job: civil servant (D)			**-1.339**	0.007
Job: freelancer (D)			-0.685	0.295
Job: self-employed (D)			-0.082	0.707
Work parttime (D)			-0.192	0.776
Work little (D)			-7.053	1.000
Past unemployment 1-6 months			**0.412**	0.003
Past unemp.> 6 months			**0.335**	0.028
Number of obs	887		666	
LR chi2(23)	139.4		111.12	
Prob > chi2	0		0	
Pseudo R2	0.0549		0.0585	
Log Likelihood	-1199.9729		-894.89974	

Note: The probability questions were only asked for respondents and their partners if they were fully, partly or little employed.

Table 6: Regression results for saving rates and savings on age, income and job variables

	Tobit estimates				OLS estimates			
	Saving rates		Savingrates		Saving rates		Savingrates	
	Coeff.	$P>z$	Coeff.	$P>z$	Coeff.	$P>z$	Coeff.	$P>z$
Net HH income/10'	-0.021	0.372	2756.702	0.001	-0.064	0.007	3337.686	0.000
Net HH income/10' sq.	0.001	0.778	-290.777	0.004	0.005	0.081	-326.019	0.001
Age/10	0.039	0.108	1580.671	0.065	0.018	0.485	789.069	0.403
Age/10 squared	-0.004	0.122	-145.323	0.079	-0.002	0.356	-81.014	0.368
Secondary school (D)	0.028	0.078	1573.795	0.006	-0.001	0.946	955.604	0.117
Graduation diploma (D)	0.086	0.000	2803.431	0.001	0.045	0.057	1418.290	0.106
University degree (D)	0.090	0.000	4659.829	0.000	0.053	0.007	3908.034	0.000
Partner (D)	0.064	0.000	2833.860	0.000	0.011	0.480	1521.987	0.009
Kids (D)	0.010	0.634	581.270	0.432	0.018	0.379	867.396	0.264
Kids living in same house (D)	-0.044	0.015	-1335.333	0.040	-0.028	0.123	-702.688	0.304
East Germany (D)	-0.018	0.259	-1180.589	0.043	0.003	0.845	-714.526	0.256
Female (D)	-0.001	0.930	-166.434	0.744	-0.0010	0.487	-418.612	0.437
Job: blue collar (D)	0.004	0.879	109.641	09.64	0.004	0.876	464.205	0.617
Job: civil servant (D)	0.051	0.136	2720.648	0.023	0.006	0.847	1128.355	0.314
Job: freelancer (D)	0.049	0.471	4336.068	0.069	0.080	0.214	6806.315	0.005
Job: self-employed (D)	0.142	0.000	6135.093	0.000	0.172	0.000	7371.621	0.000
Retired(D)	0.068	0.025	2415.502	0.025	0.022	0.490	1008.425	0.395
Work parttime (D)	-0.030	0.295	-1059.731	0.0310	0.295-1	0.273	1143.156	0.284
Work little (D)	-0.071	0.021	-1677.571	0.5581	0.019	0.558	1599.189	0.184
Work not (D)	-0.074	0.004	-2564.480	0.004	0.010	0.709	-87.758	0.929
Unemployed (D)	-0.067	0.022	-2168.852	0.037	0.008	0.809	138.344	0.912
Constant	-0.123	0.038	-7419.495	0.000	0.092	0.142	-1492.492	0.523
Number of obs	1751		1751		1005		1005	
left-censored	746		746					
uncensored	1005		1005					
LR chi2	159.740		258.730					
Prob > F	0		0.000		0 .000		0.000	
Pseudo-R sq. / R sq.	0.150		0.012		0 .050		0.124	
Log likelihood	-451. 995		-10940.126					
F(21, 983)					2 .480		6.600	
Adj. R sq.					0 .030		0.105	
Root MSE					0 .195		7326.500	

Table 7: Regression results for permanent income imputation

	Net income		ln(Net income)	
	Coef.	$P>t$	Coef.	$P>t$
Respondent				
Salary index partner	4.202	0.254	-0.001	0.748
Household size	**179.115**	0.000	**0.102**	0.000
Age / 10	-77.808	0.966	1.155	0.146
Age / 10 sq.	418.941	0.366	-0.266	0.187
(Age / 10) cub.	-76.241	0 . 0	0.024	0.355
(Age/10)^4	3.855	0.167	-0.001	0.528
# inc. sources	**77.205**	0.010	0.018	0.169
Secondary school (D)	**339.235**	0.000	**0.185**	0.000
Graduation diploma (D)	**264.785**	0.014	**0.109**	0.020
University degree (D)	829.677	0.000	**0.368**	0.000
Kids (D)	**189.060**	0.054	0.068	0.111
Kids living in same house (D)	**-517.452**	0.000	**-0.205**	0.000
East Germany (D)	**-364.048**	0.000	**-0.210**	0.000
Job: blue collar (D)	**-221.743**	0.048	-0.084	0.087
Job: civil servant (D)	638.495	0.000	0.214	0.002
Job: freelancer (D)	212.344	0.472	0.013	0.922
Job: self-employed (D)	**530.715**	0.001	**0.131**	0.062
Retired(D)	130.125	0.382	**0.150**	0.021
Work parttime (D)	**-405.935**	0.001	**-0.229**	0.000
Work little (D)	**-558.564**	0.000	**-0.373**	0.000
Work not (D)	**-602.099**	0.000	**-0.395**	0.000
Unemployed (D)	-198.885	0.103	**-0.145**	0.007
Widowed (D)	**-461.373**	0.000	**-0.269**	0.000
Separated or divorced (D)	**-465.760**	0.000	**-0.250**	0.000
Partner				
Partner (D)	-6457.766	0.518	-3.648	0.402
Salary index partner	1.414	0.849	0.000	0.982
# inc. sources	144.317	0.029	0.039	0.172
Age / 10	5755.009	0.335	3.805	0.143
Age / 10 sq.	-1978.272	0.262	**-1.316**	0.087
(Age / 10) cub.	292.717	0.221	**0.189**	0.070
(Age/10)^4	-15.188	0.197	**-0.009**	0.065
Secondary school (D)	141.893	0.301	0.053	0.371
Graduation diploma (D)	169.040	0.474	0.093	0.367
University degree (D)	**1027.127**	0.000	**0.263**	0.001
Job: blue collar (D)	**-258.862**	0.074	-0.091	0.147
Job: civil servant (D)	238.089	0.371	0.067	0.563
Job: freelancer (D)	**-926.080**	0.059	-0.283	0.187
Job: self-employed (D)	**671.694**	0.001	0.085	0.327
Retired(D)	521.327	0.276	0.212	0.310
Work parttime (D)	-379.482	0.650	-0.043	0.906
Work little (D)	-493.868	0.378	**-0.521**	0.033
Work not (D)	**-1278.834**	0.002	**-0.554**	0.002
Unemployed (D)	663.911	0.128	0.217	0.253
Constant	-1606.059	0.699	**5.867**	0.001
Number of obs	1694		1694	
F(33, 1100 / F(20, 661)	22.450		31.390	
Prob > F	0.000		0.000	
R squared	0.3691		0.45	
Adj. R sq.	0.3526		0.4356	
Root MSE	1155.4		0.50335	

Notes: Conditional regression that at least one household member is not yet retired. In 18 cases, monthly income was most probably mixed up with yearly income by the respondent when respondent's occupation was blue collar worker with low schooling and was thus divided by 12.

Table 8: Unemployment information for German Bundesländer (states); average values for 2003

State	#	Unemployed	Unemployement rate	Open jobs	Short-time workers
Baden- Württemberg		336,540	6.1	49,022	34,623
Bayern		447,349	6.9	56,863	26,991
Berlin		306,462	18.1	9,291	4,485
Brandenburg		253,028	18.8	9,125	5,675
Bremen		42,366	13.2	3,411	1,653
Hamburg		86,388	9.9	7,633	2,032
Hessen		242,059	7.9	25,989	17,651
Mecklenburg-Vorpommern		181,710	20.1	7,484	2,939
Niedersachsen		379,811	9.6	34,444	13,936
Nordrhein-Westfalen		880,053	10.0	65,394	47,205
Rheinland-Pfalz		154,610	7.7	27,308	9,170
Saarland		47,718	9.5	4,953	2,495
Sachsen		403,529	17.9	17,063	10,641
Sachsen-Anhalt		268,293	20.5	9,795	4,613
Schleswig-Holstein		136,159	9.7	10,771	4,740
Thüringen		210,693	16.7	10,115	6,524
Germany		4,376,767	10.5	354,762	195,371

Source: Bundesagentur für Arbeit.

Table 9: Ordered probit regression results for saving motives: part 1

	Buying a home		Unforseen events		Paying off debts	
	Coef.	$P > z$	Coef.	$P > z$	Coef.	$P > z$
Perm. income / 10,000	**3.380**	0.001	**2.648**	0.002	**1.687**	0.079
(Perm. income / 10,000) sq.	**-4.835**	0.001	**-3.063**	0.008	**-2.206**	0.100
Two income earners (D)	**0.320**	0.000	0.027	0.704	**0.221**	0.004
Age/10	**-0.375**	0.000	0.075	0.426	0.055	0.598
Age/10 squared	**0.028**	0.006	-0.007	0.454	-0.013	0.215
Secondary school (D)	**0.103**	0.122	**0.164**	0.007	0.050	0.446
Graduation diploma (D)	**0.206**	0.030	0.104	0.243	-0.098	0.305
University degree (D)	**0.171**	0.057	0.062	0.451	0.103	0.245
Kids (D)	-0.091	0.309	0.027	0.745	0.063	0.480
Kids living in same house (D)	0.108	0.164	-0.070	0.323	0.078	0.300
East Germany (D)	**-0.457**	0.000	**-0.145**	0.021	**-0.191**	0.005
Job: blue collar (D)	0.044	0.681	0.019	0.855	0.012	0.911
Job: civil servant (D)	-0.113	0.457	-0.048	0.739	**-0.270**	0.075
Job: freelancer (D)	0.089	0 . 0	-0.076	0.762	-0.148	0.576
Job: self-employed (D)	0.055	0.725	0.007	0.965	-0.180	0.243
Work parttime (D)	**-0.208**	0.069	-0.035	0.747	0.029	0.798
Work little (D)	-0.067	0.582	-0.054	0.638	**0.249**	0.039
Work not (D)	0.197	0.063	0.034	0.732	0.074	0.486
Unemployed (D)	**-0.299**	0.008	-0.127	0.224	0.107	0.327
Female (D)	-0.043	0.480	0.067	0.222	-0.04304	0.943
Partner	0.112	0.201	0.015	0.853	-0.050	0.567
Widowed (D)	0.039	0.718	-0.157	0.118	**-0.234**	0.029
Separated or divorced (D)	-0.032	0.748	**-0.296**	0.001	-0.092	0.345
Retired(D)	**-0.386**	0.002	-0.027	0.813	**-0.352**	0.004
Business owner (D)	-0.072	0.565	0.041	0.731	0.175	0.159
Number of obs	1957		1966		1935	
LR chi2(23)	357.94		98.41		222.1	
Prob > chi2	0.000		0.000		0.000	
Pseudo R2	0.0496		0.0118		0.0299	
Log Likelihood	-3429.6856		-4121.3349		-3603.2229	

Table 10: Ordered probit regression results for saving motives: part 2

	Old-age provisions		Traveling		Major purchases	
	Coef.	P > z	Coef.	P > z	Coef.	P > z
Perm. income / 10,000	0.703	0.424	**4.228**	0.000	**2.846**	0.001
(Perm. income / 10,000) sq.	-0.273	0.820	**-5.310**	0.000	**-3.780**	0.002
Two income earners (D)	0.059	0.415	**0.142**	0.047	-0.029	0.688
Age/10	**0.295**	0.002	-0.083	0.388	**-0.193**	0.043
Age/10 squared	**-0.029**	0.002	-0.003	0.780	0.008	0.358
Secondary school (D)	**0.185**	0.003	**0.185**	0.002	**0.186**	0.002
Graduation diploma (D)	0.051	0.569	**0.365**	0.000	**0.217**	0.014
University degree (D)	**0.142**	0.092	**0.317**	0.000	0.121	0.139
Kids (D)	0.057	0.501	0.073	0.378	-0.022	0.786
Kids living in same house (D)	**-0.227**	0.002	**-0.216**	0.002	-0.069	0.325
East Germany (D)	**-0.172**	0.007	**-0.153**	0.016	**-0.339**	0.000
Job: blue collar (D)	-0.071	0.488	**0.195**	0.051	0.060	0.547
Job: civil servant (D)	**-0.452**	0.002	**0.249**	0.081	-0.052	0.710
Job: freelancer (D)	-0.056	0.826	-0.079	0.751	0.058	0.812
Job: self-employed (D)	0.117	0.447	-0.121	0.416	-0.074	0.617
Work parttime (D)	-0.008	0.945	0.135	0.204	0.023	0.827
Work little (D)	-0.093	0.418	-0.144	0.202	0.007	0.948
Work not (D)	-0.093	0.356	0.066	0.503	-0.131	0.184
Unemployed (D)	-0.108	0.302	**-0.354**	0.001	**-0.235**	0.024
Female (D)	-0.028	0.615	0.006	0.912	**90.599**	0.599
Partner	0.076	0.342	-0.138	0.081	**0.179**	0.024
Widowed (D)	**-0.177**	0.081	0.091	0.364	0.142	0.157
Separated or divorced (D)	**-0.243**	0.008	-0.138	0.1380	-0.042	0.648
Retired(D)	**-0.450**	0.000	0.065	0.562	-0.024	0.828
Business owner (D)	0.070	0.567	-0.192	0.104	-0.041	0.726
Number of obs	1953		1967		1966	
LR chi2(23)	202.4		246.36		273.58	
Prob > chi2	0		0		0	
Pseudo R2	0.0241		0.0278		0.0308	
Log Likelihood	-4094.5818		-4304.2849		-4303.7851	

Table 11: Ordered probit regression results for saving motives: part 3

	Subsidizing offspring		Leaving bequests		To receive tax subsidies	
	Coef.	*P*> *z*	Coef.	*P*> *z*	Coef.	*P*> *z*
Perm. income / 10,000	**2.096**	0.019	0.428	0.632	**3.638**	0.000
(Perm. income / 10,000) sq.	**-1.934**	0.108	0.317	0.792	**-4.939**	0.000
Two income earners (D)	**0.160**	0.029	0.090	0.228	**0.181**	0.015
Age/10	**-0.610**	0.000	**-0.570**	0.000	**-0.235**	0.026
Age/10 squared	**0.049**	0.000	**0.052**	0.000	0.005	0.596
Secondary school (D)	-0.053	0.398	-0.073	0.255	0.023	0.723
Graduation diploma (D)	**0.164**	0.076	**-0.191**	0.045	-0.015	0.871
University degree (D)	**0.190**	0.027	**-0.149**	0.089	0.017	0.846
Kids (D)	**1.069**	0.000	**0.988**	0.000	**0.180**	0.045
Kids living in same house (D)	**0.220**	0.002	**-0.226**	0.002	-0.068	0.368
East Germany (D)	**-0.129**	0.047	**-0.255**	0.000	**-0.297**	0.000
Job: blue collar (D)	-0.074	0.482	-0.076	0.482	0.123	0.236
Job: civil servant (D)	-0.065	0.666	-0.102	0.511	-0.182	0.226
Job: freelancer (D)	-0.049	0.855	-0.04	0.872	-0.402	0.143
Job: self-employed (D)	-0.133	0.388	0.0410	0.999	0.041	0.787
Work parttime (D)	**0.225**	0.041	0.006	0.959	-0.067	0.544
Work little (D)	0.083	0.482	0.002	0.986	-0.008	0.946
Work not (D)	0.161	0.117	0.091	0.386	0.006	0.955
Unemployed (D)	-0.005	0.962	30.448	0.448	-0.083	0.448
Female (D)	-0.018	0.757	-0.034	0.562	-0.079	0.176
Partner	**-0.216**	0.008	-0.106	0.198	-0.024	0.780
Widowed (D)	**-0.332**	0.002	**-0.304**	0.006	**-0.181**	0.094
Separated or divorced (D)	**-0.310**	0.001	**-0.309**	0.001	-0.025	0.800
Retired(D)	**-0.199**	0.086	**-0.253**	0.031	**-0.319**	0.008
Business owner (D)	0.182	0.130	**0.276**	0.021	-0.037	0.760
Number of obs	1943	1943	1938	1938	1942	
LR chi2(23)	496. 77		286.4		361.09	
Prob > chi2	0		0		0	
Pseudo R2	0.0586		0. 0365		0.0466	
Log Likelihood	-3988.61 6158		-3781.9001		-3690.9245	

Table 12: Regression results: development expectations and saving rates

	Respondent		Partner	
	Coef.	$P>t$	Coef.	$P>t$
Permanent income / 10,000	0.306	0.166		
(Perm. Inc./ 10,000) sq.	-0.242	0.408		
Age / 10	**0.050**	0.071	-0.004	0.912
Age / 10 sq.	**-0.005**	0.071	0.001	0.890
Secondary school (D)	0.004	0.814	0.023	0.237
Graduation diploma (D)	0.037	0.103	0.032	0.300
University degree (D)	0.032	0.142	**0.051**	0.057
Kids (D)	0.023	0.251		
Kids living in same house (D)	**-0.056**	0.002		
Separated or divorced (D)	**-0.040**	0.095		
Widowed (D)	-0.012	0.642		
East Germany (D)	-0.001	0.966		
Female (D)	-0.010	0.514		
Job: blue collar (D)	0.025	0.294	0.015	0.575
Job: civil servant (D)	0.016	0.623	-0.034	0.489
Job: freelancer (D)	0.033	0.589	-0.017	0.833
Job: self-employed (D)	**0.114**	0.002	**-0.102**	0.012
Retired (D)	**0.062**	0.036	-0.016	0.580
Work parttime (D)	0.009	0.735	-0.017	0.581
Work little (D)	-0.023	0.427	-0.039	0.304
Work not (D)	-0.040	0.103	-0.018	0.514
Unemployed (D)	0.017	0.563	-0.013	0.729
Unemp.> 1 month (D)	-0.001	0.948	-0.0010	0.678
Unemp.> 6 months (D)	**-0.054**	0.006	0.013	0.623
Village (D)	-0.008	0.742		
Partner (D)	0.026	0.790		
Savings goal ahead (D)	**0.055**	0.021		
Business owner (D)	0.013	0.688		
Prob(inheritance)	0.025	0.456		
Occ. disab. insur. (D)	**0.061**	0.000		
Live shorter than av. (D)	-0.009	0.640		
Live longer than av. (D)	0.005	0.733		
Expectations (D)				
Low: Germany's ec. situation	**-0.021**	0.096		
High: Germany's ec. situation	-0.007	0.822		
Low: Own economic situation	**-0.113**	0.000		
High: Own economic situation	**0.045**	0.004		
Low: Own health situation	0.028	0.280		
High: Own health situation	0.021	0.160		
Low: Partner's health situation	-0.021	0.555		
High: Partner's health situation	-0.020	0.261		
Constant	-0.163	0.038		
Number of obs	1573			
uncensored obs	909			
LR chi2(68)	317.46			
Prob > chi2	0			
Pseudo R2	0.4074			
Log likelihood	-230.92823			

Table 13: Regression results: development expectations and **financial wealth/permanent income**

	Respondent		Partner	
	Coef.	$P>t$	Coef.	$P>t$
Permanent income / 10,000	**11.826**	0.000		
(Perm. Inc./ 10,000) sq.	**-11.645**	0.000		
Age / 10	**0.560**	0.039	0.590	0.127
Age / 10 sq.	-0.035	0.164	-0.0350.1	0.185
Secondary school (D)	**0.326**	0.049	**-0.352**	0.096
Graduation diploma (D)	0.255	0.290	-0.112	0.738
University degree (D)	0.151	0.501	-0.048	0.871
Kids (D)	0.140	0.494		
Kids living in same house (D)	**-0.602**	0.001		
Separated or divorced (D)	-0.340	0.144		
Widowed (D)	-0.245	0.358		
East Germany (D)	**-0.319**	0.047		
Female (D)	-0.233	0.114		
Job: blue collar (D)	0.020	0.937	-0.168	0.572
Job: civil servant (D)	-0.425	0.246	-0.156	0.758
Job: freelancer (D)	-0.562	0.383	-0.760	0.360
Job: self-employed (D)	-0.589	0.133	-0.605	0.144
Retired (D)	0.163	0.565	-0.016	0.955
Work parttime (D)	-0.326	0 . 0	0.021	0.951
Work little (D)	-0.393	0.193	0.099	0.804
Work not (D)	-0.444	0.083	-0.041	0.887
Unemployed (D)	-0.195	0.498	0.284	0.444
Unemp.> 1 month (D)	0.188	0.311	-0.058	0.828
Unemp.> 6 months (D)	-0.581	0.005	-0.082	0.780
Village (D)	0.044	0.865		
Partner (D)	**-1.637**	0.096		
Savings goal ahead (D)	**0.611**	0.016		
Business owner (D)	**0.862**	0.008		
Prob(inheritance)	**0.705**	0.053		
Occ. disab. insur. (D)	**0.376**	0.043		
Live shorter than av. (D)	-0.054	0.778		
Live longer than av. (D)	-0.037	0.806		
Expectations (D)				
Low: Germany's ec. situation	0.112	0.389		
High: Germany's ec. situation	-0.217	0.583		
Low: Own economic situation	**-0.839**	0.000		
High: Own economic situation	0.238	0.142		
Low: Own health situation	**-0.528**	0.034		
High: Own health situation	-0.194	0.212		
Low: Partner's health situation	-0.172	0.609		
High: Partner's health situation	0.173	0.362		
Constant	-1.721	0.029		
Number of obs	1140			
uncensored obs	431			
LR chi2(68)	402.4			
Prob > chi2	0			
Pseudo R2	0.1034			
Log likelihood	-1744.6798			

Table 14: Regression results: development expectations and **total wealth/permanent income**

	Respondent		Partner	
	Coef.	$P>t$	Coef.	$P>t$
Permanent income / 10,000	**12.520**	0.000		
(Perm. Inc./ 10,000) sq.	**-12.950**	0.000		
Age / 10	**0.872**	0.003	**1.025**	0.015
Age / 10 sq.	**-0.050**	0.065	-0.068	0.108
Secondary school (D)	**0.573**	0.002	-0.129	0.592
Graduation diploma (D)	**0.472**	0.071	-0.472	0.215
University degree (D)	**0.571**	0.029	-0.075	0.826
Kids (D)	**-0.574**	0.010		
Kids living in same house (D)	0.053	0.791		
Separated or divorced (D)	**-0.424**	0.100		
Widowed (D)	-0.313	0.275		
East Germany (D)	**-0.428**	0.015		
Female (D)	**-0.340**	0.037		
Job: blue collar (D)	0.313	0.269	-0.449	0.179
Job: civil servant (D)	0.026	0.952	0.316	0.596
Job: freelancer (D)	-0.993	0.156	-0.353	0.712
Job: self-employed (D)	-0.185	0.707	0.391	0.451
Retired (D)	-0.345	0.270	-0.382	0.252
Work parttime (D)	0.297	0.394	0.302	0.448
Work little (D)	**0.679**	0.041	-0.245	0.589
Work not (D)	**0.555**	0.048	0.512	0.122
Unemployed (D)	**-0.813**	0.006	-0.123	0.763
Unemp.> 1 month (D)	-0.048	0.817	-0.324	0.290
Unemp.> 6 months (D)	**-0.386**	0.089	0.350	0.287
Village (D)	**1.157**	0.000		
Partner (D)	**-3.496**	0.001		
Savings goal ahead (D)	**0.713**	0.011		
Business owner (D)	**1.959**	0.000		
Prob(inheritance)	0.472	0.256		
Occ. disab. insur. (D)	0.179	0.399		
Live shorter than av. (D)	-0.215	0.307		
Live longer than av. (D)	**-0.367**	0.028		
Expectations (D)				
Low: Germany's ec. situation	0.216	0.134		
High: Germany's ec. situation	-0.693	0.112		
Low: Own economic situation	**-0.611**	0.002		
High: Own economic situation	**0.427**	0.019		
Low: Own health situation	**-0.422**	0.109		
High: Own health situation	0.128	0.458		
Low: Partner's health situation	-0.488	0.183		
High: Partner's health situation	0.100	0.644		
Constant	-1.754	0.037		
Number of obs	1016			
F(56, 959)	10.36			
Prob *i* F	0			
R-squared	0.3769			
Adj R-squared	0.3405			
Root MSE	2.0339			

Table 15: Regression results: probability of job loss expectations and **saving** rates

	Respondent		Partner	
	Coef.	$P>t$	Coef.	$P>t$
Permanent income / 10,000	**0.476**	0.033		
(Perm. Inc./ 10,000) sq.	-0.402	0.174		
Age / 10	0.043	0.128	0.000	0.993
Age / 10 sq.	-0.004	0.120	0.000	0.974
Secondary school (D)	0.012	0.448	0 . 2	0.252
Graduation diploma (D)	0.048	0.034	0.029	0.356
University degree (D)	0.042	0.049	0.052	0.052
Kids (D)	0.021	0.305		
Kids living in same house (D)	**-0.055**	0.002		
Separated or divorced (D)	**-0.045**	0.057		
Widowed (D)	-0.015	0.578		
East Germany (D)	-0.013	0.422		
Female (D)	-0.011	0.454		
Job: blue collar (D)	**0.040**	0.096	0.014	0.589
Job: civil servant (D)	0.003	0.936	-0.043	0.389
Job: freelancer (D)	0.049	0.425	-0.063	0.463
Job: self-employed (D)	**0.125**	0.001	**-0.107**	0.010
Retired (D)	**0.069**	0.018	-0.024	0.408
Work parttime (D)	0.000	0.994	-0.022	0.478
Work little (D)	-0.011	0.712	-0.039	0.308
Work not (D)	-0.028	0.253	-0.009	0.746
Unemployed (D)	0.003	0.915	-0.034	0.358
Unemp.> 1 month (D)	-0.002	0.895	-0.004	0.851
Unemp.> 6 months (D)	**-0.054**	0.006	0.014	0.605
Village (D)	-0.002	0.938		
Partner (D)	0.002	0.987		
Savings goal ahead (D)	**0.055**	0.024		
Business owner (D)	0.018	0.575		
Prob(inheritance)	0.035	0.296		
Occ. disab. insur. (D)	**0.063**	0.000		
Live shorter than av. (D)	-0.009	0.605		
Live longer than av. (D)	0.008	0.586		
Income variation				
Income development: pos. (D)	**0.039**	0.006		
Inc. dev.: highly volatile (D)	**-0.039**	0.025		
Inc. dev.: slightly volatile (D)	-0.009	0.529		
Variance of net income	0.000	0.271		
Constant	-0.179	0.023		
Number of obs	1566			
uncensored obs	906			
LR chi2(68)	267.7			
Prob > chi2	0			
Pseudo R2	0.3462			
Log likelihood	-252.73504			

Table 16: Regression results: probability of job loss expectations and **financial wealth/permanent income**

	Respondent		Partner	
	Coef.	$P>t$	Coef.	$P>t$
Permanent income / 10,000	**12.975**	0.000		
(Perm. Inc./ 10,000) sq.	**-12.601**	0.000		
Age / 10	**0.613**	0.025	0.632	0.101
Age / 10 sq.	-0.041	0.107	-0.058	0.125
Secondary school (D)	**0.406**	0.015	-0.318	0.136
Graduation diploma (D)	0.272	0.265	-0.225	0.514
University degree (D)	0.148	0.517	0.042	0.886
Kids (D)	0.159	0.440		
Kids living in same house (D)	**-0.707**	0.000		
Separated or divorced (D)	-0.274	0.243		
Widowed (D)	-0.243	0.369		
East Germany (D)	**-0.352**	0.030		
Female (D)	**-0.284**	0.058		
Job: blue collar (D)	0.072	0.779	-0.183	0.545
Job: civil servant (D)	-0.430	0.245	-0.253	0.622
Job: freelancer (D)	-0.485	0.458	-0.880	0.293
Job: self-employed (D)	-0.551	0.168	-0.649	0.129
Retired (D)	0.214	0.453	-0.113	0.696
Work parttime (D)	-0.293	0.355	0.041	0.906
Work little (D)	-0.317	0.299	-0.040	0.921
Work not (D)	-0.355	0.175	-0.007	0.981
Unemployed (D)	-0.337	0.250	0.132	0.725
Unemp.> 1 month (D)	0.153	0.416	-0.102	0.707
Unemp.> 6 months (D)	**-0.584**	0.005	-0.054	0.855
Village (D)	0.072	0.784		
Partner (D)	-1.544	0.110		
Savings goal ahead (D)	**0.581**	0.025		
Business owner (D)	**0.899**	0.007		
Prob(inheritance)	**0.756**	0.040		
Occ. disab. insur. (D)	**0.375**	0.047		
Live shorter than av. (D)	-0.121	0.524		
Live longer than av. (D)	-0.054	0.722		
Income variation				
Income development: pos. (D)	0.151	0.329		
Inc. dev.: highly volatile (D)	-0.194	0.276		
Inc. dev.: slightly volatile (D)	-0.014	0.923		
Variance of net income	-0.001	0.311		
Constant	-2.158	0.007		
Number of obs	1130			
uncensored obs	706			
LR chi2(68)	360.65			
Prob > chi2	0			
Pseudo R2	0.0934			
Log likelihood	-1749.5148			

Table 17: Regression results: probability of job loss expectations and **total wealth/permanent income**

	Respondent		Partner	
	Coef.	$P>t$	Coef.	$P>t$
Permanent income / 10,000	**15.123**	0.000		
(Perm. Inc./ 10,000) sq.	**-15.517**	0.000		
Age / 10	**0.877**	0.003	**1.169**	0.005
Age / 10 sq.	**-0.053**	0.053	**-0.084**	0.044
Secondary school (D)	**0.657**	0.000	-0.146	0.544
Graduation diploma (D)	**0.641**	0.014	**-0.847**	0.030
University degree (D)	**0.645**	0.014	-0.120	0.726
Kids (D)	**-0.566**	0.011		
Kids living in same house (D)	-0.046	0.819		
Separated or divorced (D)	-0.513	0.047		
Widowed (D)	-0.430	0.139		
East Germany (D)	**-0.444**	0.012		
Female (D)	**-0.451**	0.006		
Job: blue collar (D)	0.311	0.279	-0.541	0.109
Job: civil servant (D)	-0.033	0.938	0.331	0.581
Job: freelancer (D)	-1.033	0.142	40.674	0.674
Job: self-employed (D)	-0.340	0.493	0.637	0.232
Retired (D)	-0.458	0.144	-0.425	0.203
Work parttime (D)	0.352	0.315	0.249	0.529
Work little (D)	**0.772**	0.022	-0.438	0.347
Work not (D)	**0.649**	0.022	**0.550**	0.098
Unemployed (D)	**-1.117**	0.000	-0.233	0.571
Unemp.> 1 month (D)	-0.049	0.818	-0.500	0.109
Unemp.> 6 months (D)	**-0.376**	0.100	0.516	0.120
Village (D)	**0.975**	0.001		
Partner (D)	**-3.853**	0.000		
Savings goal ahead (D)	**0.716**	0.012		
Business owner (D)	**1.972**	0.000		
Prob(inheritance)	0.616	0.137		
Occ. disab. insur. (D)	0.177	0.406		
Live shorter than av. (D)	**-0.389**	0.063		
Live longer than av. (D)	**-0.401**	0.017		
Income variation				
Income development: pos. (D)	-0.059	0.730		
Inc. dev.: highly volatile (D)	-0.068	0.721		
Inc. dev.: slightly volatile (D)	-0.144	0.359		
Variance of net income	-0.001	0.241		
Constant	-1.686	0.045		
Number of obs	1010			
F(33, 1100 / F(20, 661)	10.53			
Prob > F	0			
R squared	0.364			
Adj. R sq.	0.3294			
Root MSE	2.0449			

Table 18: Regression results: local unemployment probability and saving rates

	Respondent		Partner	
	Coef.	$P>t$	Coef.	$P>t$
Permanent income / 10,000	**0.560**	0.011		
(Perm. Inc./ 10,000) sq.	**-0.483**	0.099		
Age / 10	0.041	0.141	-0.006	0.868
Age / 10 sq.	-0.004	0.131	0.001	0.860
Secondary school (D)	0.012	0.444	0.017	0.374
Graduation diploma (D)	**0.051**	0.022	0.029	0.353
University degree (D)	**0.042**	0.052	**0.059**	0.028
Kids (D)	0.019	0.342		
Kids living in same house (D)	**-0.055**	0.002		
Separated or divorced (D)	-0.048	0.041		
Widowed (D)	-0.017	0.513		
East Germany (D)	-0.006	0.690		
Female (D)	-0.012	0.423		
Job: blue collar (D)	0.029	0.220	0.014	0.601
Job: civil servant (D)	0.011	0.720	-0.031	0.531
Job: freelancer (D)	0.030	0.621	-0.023	0.769
Job: self-employed (D)	**0.109**	0.003	**-0.117**	0.004
Retired (D)	**0.064**	0.029	-0.020	0.497
Work parttime (D)	0.002	0.927	-0.014	0.635
Work little (D)	-0.021	0.473	-0.033	0.379
Work not (D)	-0.036	0.147	-0.006	0.832
Unemployed (D)	-0.010	0.736	-0.045	0.221
Unemp.> 1 month (D)	-0.006	0.732	-0.003	0.882
Unemp.> 6 months (D)	**-0.056**	0.005	0.010	0.712
Village (D)	-0.006	0.806		
Partner (D)	0.011	0.904		
Savings goal ahead (D)	**0.056**	0.020		
Business owner (D)	0.018	0.566		
Prob(inheritance)	0.046	0.166		
Occ. disab. insur. (D)	**0.062**	0.000		
Live shorter than av. (D)	-0.014	0.448		
Live longer than av. (D)	0.013	0.355		
Income risk (local unemp.rate)	**0.000**	0.024		
Constant	**-0.172**	0.026		
Number of obs	1589			
uncensored obs	918			
LR chi2(68)	263.550			
Prob > chi2	0.000			
Pseudo R2	0.336			
Log likelihood	-260.606			

Table 19: Regression results: local unemployment probability and **financial wealth/permanent income**

	Respondent		Partner	
	Coef.	$P>t$	Coef.	$P>t$
Permanent income / 10,000	**13.671**	0.000		
(Perm. Inc./ 10,000) sq.	**-13.397**	0.000		
Age / 10	**0.516**	0.059	**0.726**	0.060
Age / 10 sq.	-0.032	0.204	**-0.065**	0.086
Secondary school (D)	0.399	0.017	-0.303	0.156
Graduation diploma (D)	0.297	0.224	-0.078	0.820
University degree (D)	0.191	0.403	0.094	0.753
Kids (D)	0.156	0.448		
Kids living in same house (D)	**-0.735**	0.000		
Separated or divorced (D)	-0.332	0.155		
Widowed (D)	-0.250	0.357		
East Germany (D)	**-0.325**	0.044		
Female (D)	**-0.275**	0.067		
Job: blue collar (D)	0.087	0.735	-0.175	0.563
Job: civil servant (D)	-0.379	0.306	-0.311	0.559
Job: freelancer (D)	-0.463	0.494	-0.884	0.293
Job: self-employed (D)	-0.633	0.116	**-0.735**	0.081
Retired (D)	0.154	0.592	-0.170	0.558
Work parttime (D)	-0.286	0.369	0.013	0.969
Work little (D)	-0.346	0.259	0.137	0.733
Work not (D)	-0.331	0.205	0.045	0.878
Unemployed (D)	-0.442	0.127	-0.044	0.905
Unemp.> 1 month (D)	0.154	0.414	-0.075	0.781
Unemp.> 6 months (D)	**-0.588**	0.005	-0.013	0.964
Village (D)	0.106	0.687		
Partner (D)	-1.898	0.050		
Savings goal ahead (D)	**0.614**	0.017		
Business owner (D)	**0.933**	0.005		
Prob(inheritance)	**0.779**	0.034		
Occ. disab. insur. (D)	**0.353**	0.062		
Live shorter than av. (D)	-0.147	0.440		
Live longer than av. (D)	-0.047	0.754		
Income risk (local unemp.rate)	-0.002	0.141		
Constant	-1.976	0.012		
Number of obs	1140			
uncensored obs	713			
LR chi2(68)	361.06			
Prob > chi2	0			
Pseudo R2	0.0925			
Log likelihood	-1771.2515			

Table 20: Regression results: local unemployment probability and **total wealth/permanent income**

	Respondent		Partner	
	Coef.	$P>t$	Coef.	$P>t$
Permanent income / 10,000	**14.821**	0.000		
(Perm. Inc./ 10,000) sq.	**-15.231**	0.000		
Age / 10	**0.872**	0.003	**1.217**	0.004
Age / 10 sq.	**-0.053**	0.055	**-0.087**	0.036
Secondary school (D)	**0.640**	0.000	-0.119	0.620
Graduation diploma (D)	**0.605**	0.020	**-0.661**	0.087
University degree (D)	**0.656**	0.012	**-0.050**	0.884
Kids (D)	**-0.566**	0.011		
Kids living in same house (D)	-0.065	0.749		
Separated or divorced (D)	**-0.520**	0.043		
Widowed (D)	-0.450	0.121		
East Germany (D)	**-0.453**	0.010		
Female (D)	**-0.466**	0.005		
Job: blue collar (D)	0.314	0.274	-0.531	0.115
Job: civil servant (D)	-0.064	0.880	0.204	0.741
Job: freelancer (D)	-1.055	0.153	-0.476	0.620
Job: self-employed (D)	-0.398	0.427	0.442	0.395
Retired (D)	-0.453	0.150	-0.470	0.157
Work parttime (D)	0.343	0.327	0.234	0.554
Work little (D)	**0.750**	0.025	-0.287	0.533
Work not (D)	**0.660**	0.019	0.566	0.088
Unemployed (D)	**-1.114**	0.000	-0.296	0.467
Unemp.> 1 month (D)	-0.049	0.817	-0.463	0.134
Unemp.> 6 months (D)	-0.381	0.094	0.505	0.125
Village (D)	**1.008**	0.001		
Partner (D)	**-4.025**	0.000		
Savings goal ahead (D)	**0.735**	0.009		
Business owner (D)	**2.027**	0.000		
Prob(inheritance)	0.617	0.135		
Occ. disab. insur. (D)	0.152	0.475		
Live shorter than av. (D)	**-0.390**	0.061		
Live longer than av. (D)	**-0.377**	0.024		
Income risk (local unemp.rate)	-0.002	0.144		
Constant	-1.700	0.039		
Number of obs	1016			
F(33, 1100 / F(20, 661)	11.22			
Prob > F	0			
R squared	0.3626			
Adj. R sq.	0.3303			
Root MSE	2.0467			

Table 21: Regression results: Savings motives and saving rates

	Respondent		Partner	
	Coef.	$P>t$	Coef.	$P>t$
Permanent income / 10.000	**0.490**	0.028		
(Perm. Inc./ 10,000) sq.	-0.436	0.137		
Age / 10	0.048	0.103	-0.017	0.665
Age / 10 sq.	-0.004	0.128	0.002	0.691
Secondary school (D)	0.009	0.564	0.008	0.659
Graduation diploma (D)	0.048	0.036	0.023	0.479
University degree (D)	0.044	0.042	**0.060**	0.027
Kids (D)	0.003	0.907		
Kids living in same house (D)	**-0.046**	0.012		
Separated or divorced (D)	-0.031	0.197		
Widowed (D)	-0.006	0.828		
East Germany (D)	0.000	0.984		
Female (D)	-0.006	0.697		
Job: blue collar (D)	0.036	0.130	0.032	0.224
Job: civil servant (D)	0.020	0.528	-0.013	0.784
Job: freelancer (D)	0.025	0.689	0.001	0.989
Job: self-employed (D)	**0.112**	0.002	**-0.081**	0.046
Retired (D)	**0.074**	0.013	-0.017	0.559
Work parttime (D)	0.016	0.559	-0.005	0.868
Work little (D)	-0.003	0.907	-0.00309	0.809
Work not (D)	-0.038	0.129	-0.005	0.849
Unemployed (D)	-0.003	0.921	-0.036	0.326
Unemp.> 1 month (D)	-0.005	0.755	0.000	0.983
Unemp.> 6 months (D)	**-0.054**	0.006	0.016	0.534
Village (D)	-0.016	0.515		
Partner (D)	0.037	0.702		
Savings goal ahead (D)	**0.071**	0.004		
Business owner (D)	0.010	0.758		
Prob(inheritance)	0.054	0.104		
Occ. disab. insur. (D)	**0.058**	0.000		
Live shorter than av. (D)	-0.012	0.527		
Live longer than av. (D)	0.008	0.600		
Low financial risk	-0.018	0.209		
High financial risk	-0.019	0.581		
Saving goals (D)				
Low: buying a home	0.022	0.226		
High: buying a home	**0.051**	0.007		
Low: unforseen events	**-0.103**	0.000		
High: unforseen events	0.020	0.146		
Low: repaying debts	**0.074**	0.000		
High: repaying debts	-0.027	0.135		
Low: old-age provision	-0.015	0.437		
High: old-age provision	**0.040**	0.006		
Low: holidays	0.023	0.114		
High: holidays	-0.012	0.493		
Low: major purchases	-0.011	0.498		
High: major purchases	0.008	0.618		
Low: subsidizing offspring	-0.005	0.775		
High: subsidizing offspring	0.001	0.954		
Low: leaving bequests	**-0.030**	0.053		
High: leaving bequests	-0.007	0.735		
Low: getting tax subs.	**-0.029**	0.066		
High: getting tax subs.	**-0.009**	0.635		
Constant	-0.225	0.006		
Number of obs	1515			
LR chi2(68)	357.34			
Prob > chi²0	0			
Pseudo R2	0.4834			
Log likelihood	-190.9217			

Table 22: Regression results: Savings motives and financial wealth/permanent income

	Respondent		Partner	
	Coef.	*P>t*	Coef.	*P>t*
Permanent income / 10.000	**11.199**	0.000		
(Perm. Inc./ 10,000) sq.	**-11.166**	0.000		
Age / 10	**0.724**	0.011	0.616	0.109
Age / 10 sq.	**-0.046**	0.088	-0.053	0.166
Secondary school (D)	**0.358**	0.031	-0.325	0.118
Graduation diploma (D)	0.229	0.345	-0.148	0.668
University degree (D)	0.069	0.759	0.240	0.414
Kids (D)	0.100	0.643		
Kids living in same house (D)	**-0.707**	0.000		
Separated or divorced (D)	-0.126	0.589		
Widowed (D)	-0.105	0.700		
East Germany (D)	**-0.365**	0.025		
Female (D)	**-0.265**	0.076		
Job: blue collar (D)	-0.056	0.821	-0.015	0.959
Job: civil servant (D)	-0.266	0.465	-0.254	0.610
Job: freelancer (D)	**-1.140**	0.098	-0.713	0.385
Job: self-employed (D)	-0.482	0.212	-0.432	0.294
Retired (D)	0.251	0.381	-0.236	0.408
Work parttime (D)	-0.262	0.402	0.044	0.895
Work little (D)	-0.145	0.634	0.251	0.528
Work not (D)	**-0.458**	0.075	-0.040	0.890
Unemployed (D)	-0.332	0.247	0.170	0.642
Unemp.> 1 month (D)	0.111	0.546	0.079	0.769
Unemp.> 6 months (D)	**-0.555**	0.007	-0.091	0.755
Village (D)	-0.033	0.900		
Partner (D)	**-1.594**	0.097		
Savings goal ahead (D)	**0.593**	0.022		
Business owner (D)	**0.905**	0.005		
Prob(inheritance)	**0.811**	0.024		
Occ. disab. insur. (D)	0.236	0.207		
Live shorter than av. (D)	-0.115	0.550		
Live longer than av. (D)	-0.096	0.523		
Low financial risk	**-0.492**	0.001		
High financial risk	-0.318	0.408		
Saving goals (D)				
Low: buying a home	0.272	0.155		
High: buying a home	0.332	0.101		
Low: unforseen events	**-0.676**	0.002		
High: unforseen events	0.177	0.221		
Low: repaying debts	**0.457**	0.010		
High: repaying debts	**-0.389**	0.039		
Low: old-age provision	-0.039	0.832		
High: old-age provision	0.183	0.227		
Low: holidays	-0.073	0.620		
High: holidays	-0.196	0.272		
Low: major purchases	-0.033	0.835		
High: major purchases	0.238	0.170		
Low: subsidizing offspring	**-0.298**	0.086		
High: subsidizing offspring	-0.059	0.746		
Low: leaving bequests	-0.111	0.498		
High: leaving bequests	-0.331	0.120		
Low: getting tax subs.	**-0.361**	0.026		
High: getting tax subs.	-0.004	0.984		
Constant	-1.886	0.019		
Number of obs	1083			
LR chi2(68)	441.04			
Prob > chi2	0			
Pseudo R2	0.1188			
Log likelihood	-1636.0567			

Table 23: Regression results: Savings motives and total wealth/permanent income

	Respondent		Partner	
	Coef.	$P>t$	Coef.	$P>t$
Permanent income / 10,000	**12.861**	0.000		
(Perm. Inc./ 10,000) sq.	**-13.360**	0.000		
Age / 10	**0.905**	0.003	**0.975**	0.023
Age / 10 sq.	**-0.054**	0.070	-0.065	0.132
Secondary school (D)	**0.541**	0.004	-0.060	0.801
Graduation diploma (D)	**0.604**	0.024	-0.238	0.554
University degree (D)	**0.656**	0.014	0.299	0.396
Kids (D)	**-0.498**	0.037		
Kids living in same house (D)	-0.067	0.748		
Separated or divorced (D)	-0.286	0.279		
Widowed (D)	-0.388	0.194		
East Germany (D)	**-0.368**	0.041		
Female (D)	**-0.424**	0.012		
Job: blue collar (D)	0.404	0.157	-0.187	0.582
Job: civil servant (D)	-0.063	0.885	0.433	0.469
Job: freelancer (D)	-1.235	0.111	0.229	0.812
Job: self-employed (D)	-0.214	0.663	0.517	0.321
Retired (D)	-0.207	0.518	-0.403	0.233
Work parttime (D)	0.431	0.223	0.439	0.271
Work little (D)	**0.660**	0.056	-0.189	0.684
Work not (D)	**0.538**	0.060	0.507	0.133
Unemployed (D)	**-0.819**	0.006	-0.325	0.427
Unemp.> 1 month (D)	-0.076	0.718	-0.276	0.381
Unemp.> 6 months (D)	-0.321	0.163	0.390	0.243
Village (D)	**0.868**	0.005		
Partner (D)	**-3.514**	0.001		
Savings goal ahead (D)	**0.681**	0.019		
Business owner (D)	**1.964**	0.000		
Prob(inheritance)	0.643	0.120		
Occ. disab. insur. (D)	0.032	0.883		
Live shorter than av. (D)	**-0.438**	0.041		
Live longer than av. (D)	**-0.387**	0.024		
Low financial risk	**-0.414**	0.015		
High financial risk	-0.531	0.228		
Saving goals (D)				
Low: buying a home	**0.384**	0.072		
High: buying a home	**0.917**	0.000		
Low: unforseen events	**-0.652**	0.005		
High: unforseen events	0.066	0.682		
Low: repaying debts	0.204	0.305		
High: repaying debts	0.097	0.648		
Low: old-age provision	-0.202	0.321		
High: old-age provision	0.144	0.398		
Low: holidays	**0.382**	0.022		
High: holidays	-0.002	0.992		
Low: major purchases	-0.182	0.304		
High: major purchases	**0.341**	0.090		
Low: subsidizing offspring	0.225	0.252		
High: subsidizing offspring	**-0.436**	0.040		
Low: leaving bequests	-0.052	0.782		
High: leaving bequests	**0.547**	0.024		
Low: getting tax subs.	-0.229	0.213		
High: getting tax subs.	**-0.377**	0.094		
Constant	-1.991	0.021		
Number of obs	969			
F(33, 1100 / F(20, 661)	8.94			
Prob > F	0			
R squared	0.4032			
Adj. R sq.	0.3581			
Root MSE	2.0095			

Table 24: Regression results: All subjective variables for saving rates, relative financial wealth, relative total wealth

	Saving rates		Relative financial wealth		Relative total wealth	
	Coef.	***P>t***	Coef.	***P > t***	Coef.	***P>t***
Savings goal ahead (D)	**0.067**	0.006	**0.498**	0.046	**0.649**	0.022
Business owner (D)	0.009	0.770	**0.814**	0.010	**1.841**	0.000
Prob(inheritance)	0.031	0.366	**0.764**	0.028	**0.679**	0.097
Occ. disab. insur. (D)	**0.054**	0.001	0.234	0.201	-0.017	0.938
Live shorter than av. (D)	-0.009	0.627	90.627-0	0.712	-0.328	0.127
Live longer than av. (D)	-0.004	0.797	-0.070	0.635	**-0.446**	0.009
Low financial risk (D)	-0.021	0.142	**-0.468**	0.001	**-0.318**	0.059
High financial risk (D)	-0.031	0.386	-0.452	0.224	-0.571	0.186
Saving goals (D)						
Low: buying a home	0.018	0.323	0.227	0.226	0.345	0.105
High: buying a home	**0.053**	0.007	**0.359**	0.068	**0.967**	0.000
Low: unforseen events	**-0.094**	0.000	**-0.641**	0.002	**-0.696**	0.002
High: unforseen events	**0.025**	0.067	0.208	0.140	0.052	0.742
Low: repaying debts	**0.066**	0.000	**0.438**	0.012	0.192	0.331
High: repaying debts	-0.027	0.133	-0.304	0.096	0.101	0.628
Low: old-age provision	-0.018	0.382	-0.039	0.827	-0.228	0.257
High: old-age provision	**0.034**	0.019	0.112	0.448	0.073	0.664
Low: holidays	**0.026**	0.078	-0.080	0.575	**0.360**	0.028
High: holidays	-0.008	0.670	-0.181	0.296	-0.005	0.981
Low: major purchases	-0.001	0.968	0.094	0.541	-0.093	0.595
High: major purchases	-0.001	0.967	0.223	0.189	0.306	0.123
Low: subsidizing offspring	-0.002	0.927	**-0.301**	0.077	0.228	0.241
High: subsidizing offspring	0.003	0.875	-0.051	0.773	**-0.467**	0.025
Low: leaving bequests	-0.022	0.160	-0.019	0.907	0.010	0.958
High: leaving bequests	-0.005	0.788	-0.330	0.111	**0.542**	0.023
Low: getting tax subs.	**-0.028**	0.079	**-0.307**	0.052	-0.271	0.136
High: getting tax subs.	-0.013	0.483	0.007	0.970	**-0.412**	0.063
Income variation						
Income development: pos. (D)	**0.026**	0.071	0.128	0.397	-0.083	0.633
Inc. dev.: highly volatile (D)	**-0.032**	0.074	-0.151	0.377	-0.066	0.728
Inc. dev.: slightly volatile (D)	-0.005	0.732	0.032	0.818	0.008	0.962
Variance of net income	0.000	0.351	0.000	0.904	0.000	0.661
Income risk (local unemp.rate)	**0.000**	0.024	-0.002	0.249	-0.001	0.649
Low: Germany's ec. situation	-0.020	0.140	0.181	0.155	0.133	0.365
High: Germany's ec. situation	0.028	0.414	-0.001	0.999	-0.640	0.134
Low: Own economic situation	**-0.093**	0.000	**-0.696**	0.000	**-0.493**	0.013
High: Own economic situation	0.024	0.138	0.162	0.309	**0.384**	0.037
Low: Own health situation	0.023	0.381	**-0.511**	0.036	-0.405	0.125
High: Own health situation	0.015	0.344	**-0.284**	0.065	-0.011	0.952
Low: Partner's health situation	-0.004	0.906	0.087	0.792	-0.119	0.749
High: Partner's health situation	-0.009	0.620	**0.344**	0.065	0.281	0.197

Figures

Figure 4: Transformation of the wealth variable

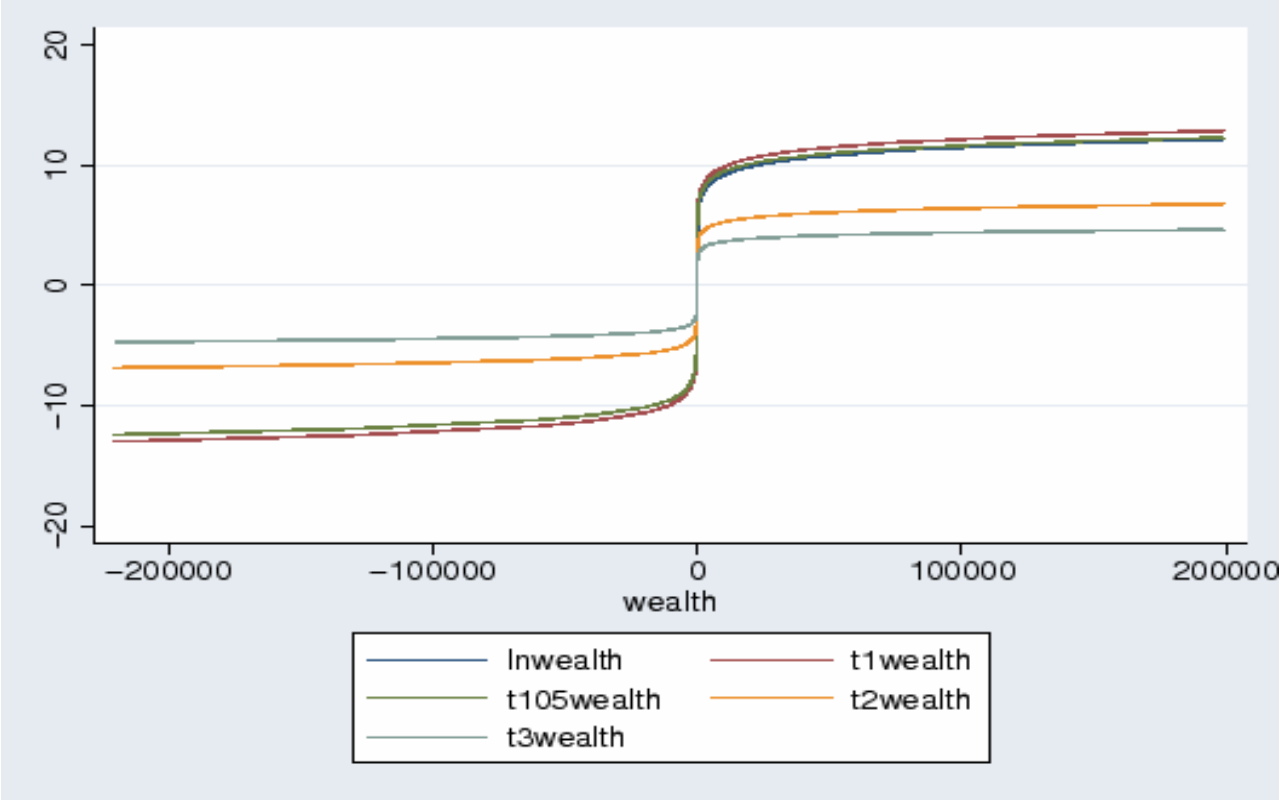
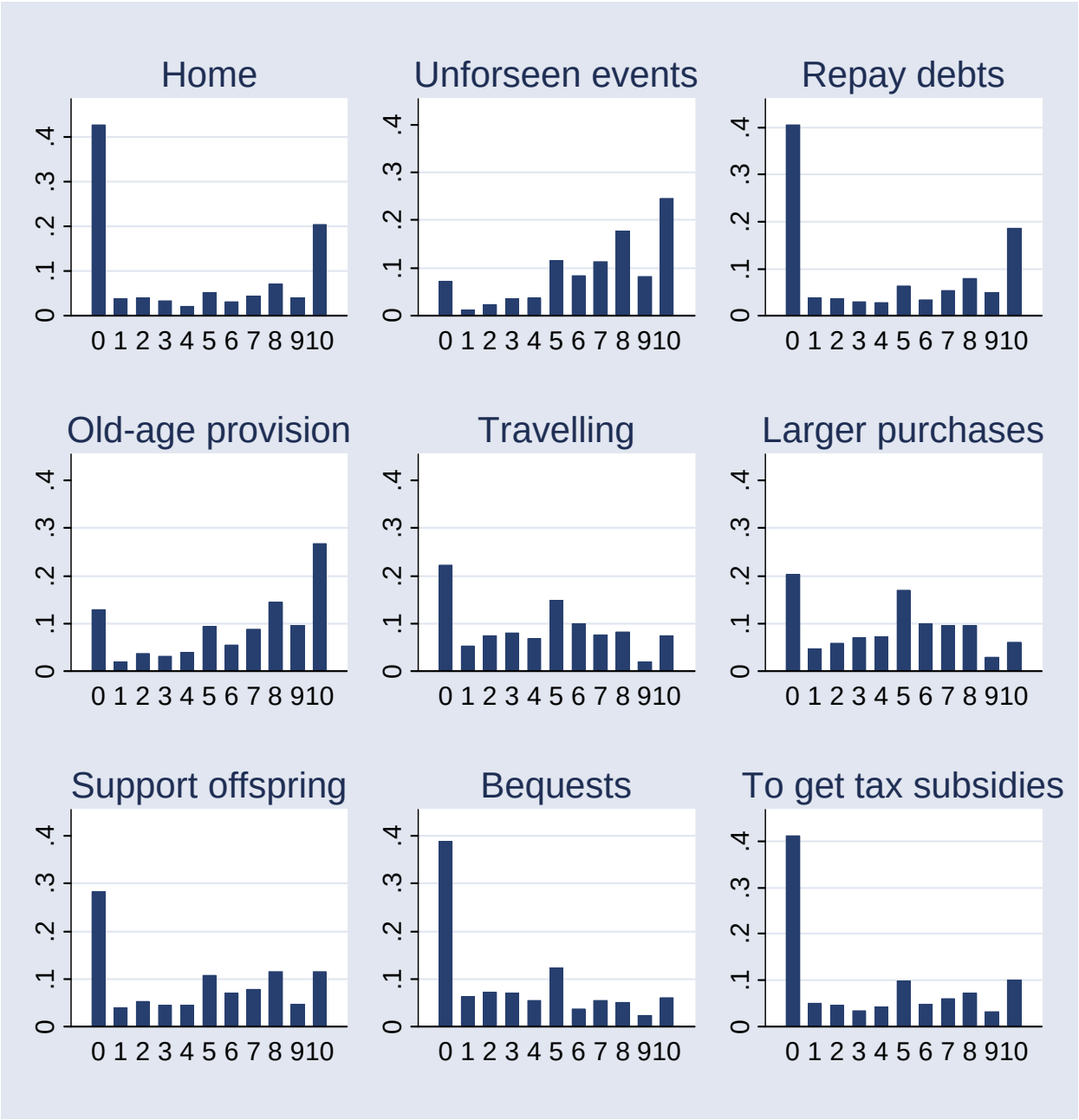
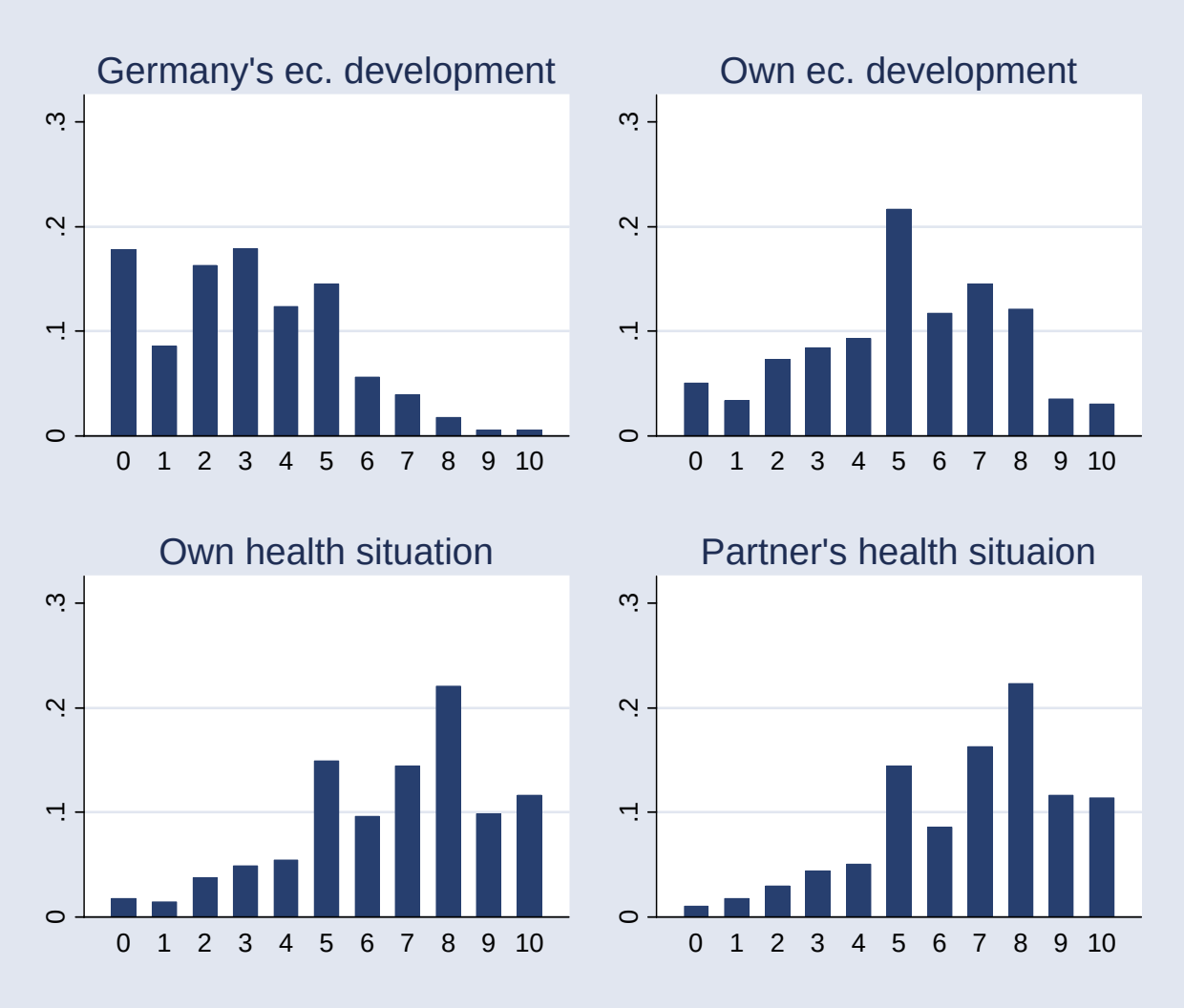


Figure 5: Histograms for saving reasons



Notes: Weighted values by subsample, hh income, and age. Answers are measured on a scale from 0 to 10, where 0 means `totally unimportant' and 10 `very important'.

Figure 6: Histograms for development expectations



Notes: Weighted values by subsample, hh income, and age. Answers are measured on a scale from 0 to 10, where 0 means `very negative' and 10 `very positive'.

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