high) food consumption amount of another respondent with similarly high earnings but with observed food consumption. The imputed values are flagged (i.e., an indicator variable is constructed indicating the level of imputation) and flags and imputed variables will be included in the public release of the data. More refined imputation methods will be applied to later data releases.

7.9 Computing a Comparable Health Index

Hendrik Jürges

Subjective data, such as self-assessed health can be subject to cross-country bias for several reasons. However, there is a fairly straightforward possibility to compute a single measure of health, that is comparable across countries. The main requisite are objective data on the respondents health: self reported diagnosed chronic conditions, mental illnesses, symptoms (especially pain), or functional limitations. If available, one also uses medical records, and measurements and tests like blood samples, grip strength, balance, gait speed, etc. The absence of any conditions, symptoms, or limitations, implies perfect health, i.e. an index value of 1. The presence of a condition reduces the health index by some given amount or %age, the so-called disability weight. The disability weight of each condition or symptom is assumed to be the same for each respondent.

Disability weights are often derived by expert judgements or surveys specialised to elicit health preferences, using time trade-off or standard gambles. In SHARE, we are able to compute disability weights from within our sample (Cutler and Richardson 1997) by estimating ordered probability (e.g. probit) models of self-reported health (which ranges e.g. from „excellent" to „poor") on a large number of variables representing chronic conditions, symptoms, ADL problems, depression, physical functioning, height, weight, and cognitive functioning. We can also include our measures of grip strength and walking speed, and basic demographic variables like age and sex. The health index is then computed as the linear prediction from this regression (the latent variable), normalised to 0 for the worst observed health state (often referred to as „near death") and 1 for the best observed health state (referred to as „perfect health"). This procedure implies disability weights for each condition or impairment that are equal to the respective (also normalised) regression parameters. Since the variable on which we base this measurement is self-reported health itself (and thus potentially subject to cross-cultural bias), we account for country specific reporting styles by modelling the latent variable thresholds as a function of country of residence (i.e. we basically have fixed country effects at each threshold). Thus thresholds are allowed to vary across countries, while disability weights are constrained to be the same in each country.

7.10 Income Imputation

Omar Paccagnella and Guglielmo Weber

The Definition of Income: Total income is the sum of some incomes at the individual level and some at the household level. The basic definition used in the SHARE project reflects money income before taxes on a yearly base (2003) and includes only regular payments. Lump-sum payments and financial support provided by parents, relatives or other people are not included.

The available data at the individual level include: income from employment; income from self-employment or work for a family business; income from (public or private) pensions or invalidity or unemployment benefits; income from alimony or other private regu-

lar payments; income from long-term care insurance (only for Austria and Germany).

The available data at the household level include: income from household members not interviewed; income from other payments, such as housing allowances, child benefits, poverty relief, etc.; income actually received from secondary homes, holiday homes or real estate, land or forestry; capital income (interest from bank accounts, transaction accounts or saving accounts; interest from government or corporate bonds; dividend from stocks or shares; interest or dividend from mutual funds or managed investment accounts). For homeowners, the data at the household level also include imputed rent, based on the self-assessed home value minus the net residual value of the debt (payments for mortgages or loans). The interest rate used for imputed rents is fixed at 4% for all countries.

The SHARE definition of income does not include home business and „other types of debts": in the latter case we are not able to separate the amount of the debts on cars and other vehicles from the total amount of debts.

Imputations: Whenever a respondent did not know or refused to give the exact amount in a certain question, unfolding brackets (UB) questions were asked to recover that value (see above). Different cut-offs were used across countries.

As far as UB observations are concerned, we implemented a simple hot-deck procedure to impute values for those cases in which the exact amount are missing. At this stage, only the amount variable is imputed. Also, we imputed one variable at a time and did only one round of imputations for each variable. No stratification was made, except by country (due to the differences in the cut-offs).

In the event of a „refusal" or „don't know" answer to all UB questions, we stratify by country and age classes, except for financial assets, where income is computed on the basis of the stock values (whether exact records exist or just imputed).

In the event of "invalid" („refusal", „don't know", or missing) values on frequency variables (for instance the period covered by a payment and the number of months in which the respondent has received the payment in 2003), a linear regression technique was applied to impute such frequencies. In particular, we used the linear regression only for the frequencies of received pension. The regression conditions upon the following independent variables: age, sex and dummy indicators for whether the associated amount variable belongs to the intervals defined by the 1st, 2nd, and 3rd quartile.

We produce the estimated coefficients for each frequency variable within each country. In a few cases the hot-deck procedure may fail because there are no donors that can be used for that specific interval.

7.11 Wealth Imputation

Dimitrios Christelis, Tullio Jappelli, and Mario Padula

The Definition of Wealth: SHARE contains the following information on the ownership and value of the following assets.

- Real assets, i.e. the ownership and value of the primary residence, of other real estate, of the share owned of own businesses and of owned cars.
- Gross financial assets, i.e. the ownership and value of bank accounts, government and corporate bonds, stocks, mutual funds, individual retirement accounts, contractual savings for housing and life insurance policies.
- Mortgages and financial liabilities.