6 Socio-Economic Status
Ed. Guglielmo Weber

6.1 Household Income
Omar Paccagnella and Guglielmo Weber

6.2 Poverty and Social Exclusion: A New Approach to an Old Issue
Antigone Lyberaki and Platon Tinios

6.3 Wealth and Portfolio Composition
Dimitrios Christelis, Tullio Jappelli, and Mario Padula

6.4 Consumption
Martin Browning and Edith Madsen

6.5 Income, Wealth and Consumption Inequality
Eric Bonsang, Sergio Perelman, and Karel Van den Bosch

6.6 Expectations
Luigi Guiso, Andrea Tiseno, and Joachim Winter

Appendix Tables
6.1 Household Income
Omar Paccagnella and Guglielmo Weber

Why Is Income Important?
Income is by no means the only way to support consumption in old age, as financial assets can be run down and real assets can also be used to generate liquidity (reverse mortgages, equity lines etc.). Also, social and family support may be used to meet important requirements near the end of the life-cycle, such as nursing and long-term care.

However, social scientists and economists have always shown a keen interest in income, for instance in their studies of economic inequality and poverty, and in most health surveys containing questions on economic and social well-being, the only measure of access to economic resources is income. Indeed, income is an important (arguably, the most important) component of any measure of access to economic resources, thus deserving careful investigation on its own. For this reason, in this section we present statistics on household income as recorded in SHARE in a number of different dimensions.

This contribution describes the income available to households, and shows how careful one needs to be in defining it when comparing across countries. In almost all EU policy statements income per capita statistics are core indicators for public policy. But our analysis reveals that coarse income measures mask important differences that are due to differences in purchasing power, in household size, in taxation, in the services provided by owner-occupied housing. Only after allowance is made for all these factors, can we compare incomes across countries in a meaningful way.

In Figure 1 we summarise graphically some of the income differences found across SHARE countries by reporting the average and median gross household income in its basic definition (excluding imputed rent from owner occupation – current exchange rates have been used to translate national currencies in euros, where applicable). Average income exceeds €45,000 in three countries (Denmark, the Netherlands, Switzerland), it lies between €30,000 and €45,000 in Austria, France, Germany and Sweden, it is below

![Figure 1: Average and median gross household income across SHARE countries](image-url)
€30,000 in Italy as well as in Greece and Spain. However, median income may be a better indicator of access to economic resources, as averages are heavily affected by the right tail of the distribution. In fact, Figure 1 shows that for all countries median income is much lower than average income, and that the difference is by no means constant. So Sweden replaces the Netherlands among the top three countries in terms of median income; among the lower income countries, Spain and Greece median incomes are less than half of Italy’s, whereas Austria and Italy appear quite close (the complete data underlying this figure are presented in Tables 6A.1 and 6A.2).

In the rest of this section we shall provide more systematic evidence on ways in which income varies across countries, by looking at its various sources and by assessing the relevance of corrections for differences in purchasing power, in household size and in taxation. We shall also argue that some international differences appear less strong when owner-occupied housing is brought into the picture. All these adjustments can be implemented in the SHARE data in a consistent manner, and this makes this data set a particularly valuable source of information for policy analysis.

**What Income Is in SHARE?**

The SHARE questionnaire contains a number of questions on individual incomes, such as earnings, pensions and transfers, and a few questions on incomes that can only be recorded at the household level. The former are asked to all eligible individuals. The latter are asked to one particular respondent, and include items such as rents and housing benefits received, as well as an estimate of all individual incomes of non-eligible household members. Interest and dividend income is sometimes recorded at the individual level (when respondents keep their finances separate), but more often at the household level, and we therefore always treat it as a household level item (known as “capital income”). We should stress that household income does not include capital gains on financial or real assets.

Total household income is the sum of some incomes at the individual level and some at the household level. Lump-sum payments and financial support provided by parents, relatives or other people are excluded. The basic definition used here reflects money income before taxes on a yearly base (2003) and includes only regular payments. SHARE is the only European-wide data set that collects the gross amount for all income components in a consistent way.

The coarse income data require some adjustments before they can be used. First, imputations are needed for missing income items. Secondly, a correction must be made for differences in purchasing power across countries – to this end, we used OECD PPP exchange rates (that apply also within the Euro area) to turn nominal incomes into real incomes.

The issue of imputation is particularly relevant for income. In fact, household income is the sum of a very large number of items: for most of these, we have an exact record provided by the respondent, but for some others such amount is not available. However, when respondents refused or were not able to provide an exact answer to a question on a particular income or asset component, they were routinely asked unfolding brackets questions (was this income higher/lower than a certain threshold?). These answers place the income in a certain range, but an exact value needs to be imputed. Imputations were made using a conditional hot-deck procedure: missing income items were randomly replaced with income records from households from the same country, same income range (where available) or sex and age (where such range was not available).

Table 6A.3 presents average gross household income by country (after correcting for
differences in purchasing power) as the sum of its different components. For each item, it also reports the proportion that is imputed. So, for instance, we see that the mean of overall household income is €40,883 across all countries, with a minimum of €23,320 in Greece and a maximum of €56,856 in Switzerland. Over all SHARE countries, 19.2% of average income is the result of the imputations described above. Looking at the different columns, we see that the three largest income components are pension income (where imputations account for 15.2% of the average value), employment income (13.8% is imputed) and imputed rent. Imputed rent is defined in SHARE as a fixed proportion (4%) of the value of the home, net of mortgage interest payments; home value or mortgage interest imputations account for 25.9% of this item. Self-employment income, capital income, income from other household members and from other sources are much smaller items.

In Figure 2 we show the importance of different income components. We look at average gross income, corrected for purchasing power differences, and inclusive of imputed rent from owner occupation. Imputed rent is a relatively small item in Nordic countries, as well as in Germany, Greece and Austria, but it is quite important in France, Italy and Spain. This is consistent with the notion that in countries where credit markets are not well developed, but house prices are high, many elderly individuals are house-rich but cash-poor. However, imputed rent is also a highly volatile measure, that is based on the market value of the main residence, and its average may be heavily influenced by the business cycle, as indeed capital income.

Two other striking features emerge when we look at Figure 2. First, earnings are the largest item in Denmark, Germany and Switzerland, whilst pensions play the biggest role in Austria and the Netherlands. Such differences may be due to differences in pension payments or in retirement ages across countries. Secondly, the residual item (that is mostly made of income from other members) is relatively small, except in Switzerland and the Netherlands.
Towards a Better Income Measure

We have already stressed that average gross household income is a relatively unsatisfactory measure of individuals’ access to economic resources and shown how different median income is from average income. In this section, we document the role of corrections for differences in purchasing power and in household size. We also show how to account for owner occupation housing (through imputed rent) and for tax and social security contributions paid. These two income components are particularly important, as they vary greatly across countries, age and income groups.

Figure 3 shows country medians of gross income in three different definitions: basic, corrected for PPP and corrected for both PPP and household size. The basic definition (left bar) does not include imputed rent – all non-Euro values are turned into euros at the current exchange rates. Allowing for differences in purchasing power (middle bar) has the effect of reducing median income in Switzerland and the Nordic countries, increasing it in Mediterranean countries (particularly Greece and Spain). Finally, differences in household size can be accounted for by dividing household income by the number of equivalent adults (EA, based on OECD scale – right bar). The resulting statistic comes close to the notion of per-capita income that is required for policy analysis, and shows that SHARE countries can be divided in three groups: Nordic countries, Switzerland and the Netherlands enjoy the highest gross income, followed by France and Germany. Austria, Italy, and particularly Greece and Spain have the lowest gross income as defined here.
In Figure 4 we show median income by country in three definitions: gross income accounting for PPP and household size (EA – left bar), as already shown in Figure 3, the same plus imputed rent from owner-occupation (middle bar), and finally our estimate of median net income (that is, income after tax and social security contributions – right bar).

Comparing the first two bars for each country, we see that imputed rent (net of mortgage interest payments) does play a major role in explaining median gross income, very much in line with what we saw in Figure 2. Imputed rent is confirmed to be a substantial income component in Spain, Italy, France, Switzerland and to some extent Austria, Greece and the Netherlands. It is much less important in Nordic countries and Germany. It is worth stressing that SHARE is the only European – wide data set that allows consistent computation of imputed rent across countries, unlike the ECHP (European Community Household Panel) or its follow-up, EU – SILC (Statistics on Income and Living Conditions – for which records of imputed income are planned from 2007).

The right bar in Figure 4 shows median net income. This has been computed from household gross income, by subtracting income tax and employee’s social security contributions (SSC) on the basis of OECD estimates of average income tax and SSC rates by household types (married versus single, four different levels of gross income. Linear interpolation of tax and SSC rates has been used for in-between incomes). SSC have been computed on the basis of earnings of eligible individuals, while all remaining household income (except imputed rent from owner-occupations) has been taxed at the corresponding average tax rate. Country-specific exemption levels have been taken into account. We assume imputed rent not to be subject to taxation. It is worth stressing that SHARE uses information external to the survey to provide a net income measure, unlike ECHP or EU – SILC, which estimate a net/gross income ratio on the basis of information collected on various income components (some gross and some net - see Eurostat 2002, for further details).
We see that median net income is much lower than gross income in Nordic countries, as expected. We also see important effects of taxation in all other countries, with the noticeable exceptions of Greece and Spain. In Austria and Italy the difference between gross and net income is also relatively minor.

Taking this final picture at face value, we should conclude that the SHARE data on the economically relevant notion of income tell us an interesting story: Southern European countries – particularly Greece and Spain – are indeed poorer than the others, but their median income falls short of the more affluent countries, like Germany, France and the Nordic countries, by much less than a straight comparison with average gross income would suggest. A second point worth stressing is that Swiss and Dutch 50+ households seem to have better access to economic resources than households from all other SHARE countries. However, most households in these two countries have to purchase private health insurance, and this is not reflected in our net income computations.

Conclusions
We have provided evidence on ways in which income varies across countries, by looking at its various sources and by assessing the relevance of corrections for differences in purchasing power, in household size and in taxation. We have also shown that:

- Some international differences appear less strong when owner-occupier housing and taxation are brought into the picture.
- Imputed rent should be included in income, as is the income of any other asset held by the household.
- All the necessary adjustments can be implemented on the SHARE data in a consistent manner, and this makes this data set a particularly valuable source of information for policy analysis.
- The breadth of topics covered in the SHARE questionnaire will make it possible to construct further, more comprehensive measures of access to economic resources, but in all of them income is likely to play an important role.

References
6.2 Poverty and Social Exclusion: A New Approach to an Old Issue
Antigone Lyberaki and Platon Tinios

Seeking Policy Added Value – An Overview

Poverty as a concept has historically played a key role in the shaping of social policy. ‘Poverty’ or ‘social inclusion’ have well-understood, if vague, connotations; the appeal and attraction of the terms are due to their significance to social engagement. We are interested in poverty because we are concerned about the poor. One of the central questions in our concerns about ageing is that the nature of poverty may change with the advent of ageing.

In bringing a new data source to bear on a well-worn subject on which a policy debate is ongoing, we should be careful to slot in the new insights in such a way that they take into account the current state of policy debate, illuminate concerns and open new avenues.

Poverty is most commonly defined in advanced countries as the situation in which an individual is unable to participate fully in what is socially accepted as the life of the community. If everything that matters could be obtained in markets, then the idea of ‘participating fully’ could be approximated as possessing a minimum level of income. However, crucial goods are provided in ways that bypass the market: Health, social and care services, urban transport are to some extent distributed through non-market criteria. Equally, access to social networks, the environment and other non-tangibles impinge on social welfare. Most crucially, the instances where the subjective ‘feel’ of poverty transcends the simple measure of income may be more frequent as age rises.

Nevertheless, there remains a sense in which financial considerations may be accorded primacy. A ‘pragmatic approach’ has evolved whereby financial poverty is conventionally linked to the shape of the lower end of the income distribution: thus a poverty line is drawn with reference to the income of the median individual (the person at the middle of the income distribution). Lines of 50% median and 60% median are in common use, while the latter has received most attention at the EU level, as the central ‘risk of poverty line’. ¹

The ‘risk of poverty’ plays a crucial role in EU discussions. The two waves of National Action Plans for Inclusion serve as the cornerstones of the open method of co-ordination in the social field. Quantification through the use of indicators is the key innovation of this ‘soft law’ approach to social policy, designed to add a European impetus to an area under exclusive member state jurisdiction. The 2001 European Council at Laeken approved a list of indicators covering dimensions of the ‘risk of poverty’ (Eurostat 2004). It noted that much work still needed to be done, both to improve statistical infrastructure and to capture the multidimensional nature of poverty.

SHARE has the potential to enrich and to open new roads in this policy discussion. This short paper illustrates that, even at this early stage, analysis of SHARE data can illuminate discussions on the extent and characteristics of poverty and begin to ‘flesh out’ our picture of poverty and the poor.

Is Old Age Poverty More Serious than We Think?

The first step in the analysis is to see how SHARE compares with the ‘stylised facts’ of poverty. To do this we must note that the analysis of low income in a survey like SHARE comes at the end of the data processing phase. Accepting that some results may need to be reviewed later, we need to identify important findings.
The starting point for the analysis is the weighted data for the entire sample of the over 50s in SHARE. The income used was the version 0 estimates of ‘net income’ presented in the contribution on Household income. Given the centrality of the income of the median individual, infelicities in modelling taxation in the middle of the income distribution may well bias the poverty line upwards – more so in the Northern countries. Total household income, excluding imputed rent from owner occupation, was attributed in equal part to all household members. Poverty lines are computed on the basis of the median individual of the SHARE sample of over 50s.

Those familiar with the picture of social exclusion from ECHP (e.g. Eurostat 2004) may be surprised by the picture emerging in Figure 1. ‘Poverty’ rates are relatively high – in all but one country more than one in five people are below the poverty line. There is also a smaller dispersion of poverty rates; the country rankings are possibly also unfamiliar. However, the concentration of people between the two alternative poverty lines in the Nordic countries is reproduced and found to apply also to Switzerland; the choice of the 50% rather than the 60% line thus leads to a change in country rankings.

To compare our findings with other information, we must allow for the fact that the SHARE sample consists of individuals over 50, rather than the entire population. The ability to participate fully in the life of society refers to the entire society: One would need to assume a total breakdown in generational communication to presume that older citizens never compare themselves with those under 50. Thus, the question arises as to how to define such a line, given that detailed information only exists for households containing individuals over 50 years of age.

We know (e.g. Joint Pension Report – CEC 2002) that the aged are subject to different poverty risks across the EU. In some countries (Greece and Denmark) old age is associated with greater poverty risk, while in others the reverse holds. A possible correction in order to approximate the population median (and hence poverty line) could be to use outside information to adjust the poverty lines upwards in countries where old age incomes are known to be lower and vice versa. In this way age-corrected poverty lines could be
Socio-Economic Status

computed. To identify those lines as closer to the ‘true’ population lines would need the additional assumption that the extraneous sources employed measure incomes both of the under 50s and the over 50s with the same degree of accuracy.

Given the European reference of the data, an obvious candidate for an extraneous source – for the EU member states - would be the ECHP. The SHARE (over 50) poverty line is corrected according to how different the median income of the over 50s is compared to the overall population in the last available ECHP wave, that of 2001 (Eurostat 2004).

The correction factor appears as column 2 in Table 1. It takes its maximum value in Greece (where SHARE poverty lines are increased by 5.4% and its smallest in Sweden and Holland were they are reduced by 7.7%) – the range being 11.1%. This correction, as would have been expected, introduces more variability and leads to some familiar patterns emerging. A definite North-South gradient is complemented with the presence of Denmark. Sweden is at the one extreme (followed by France) and Spain, Greece and Italy at the other.

To examine how far SHARE findings approximate those of the ECHP one should examine similar populations. This can be done for subsets of the population for whom extraneous estimates can be obtained, viz. for those over 65, as well as the group 50-64. Of these the former may be thought to have more or less severed links with the world of work, whereas the latter is still active. Table 1 compares SHARE with ECHP.

In this more restricted comparison, poverty rates of the elderly, even after correction, remain larger than in the ECHP. In Greece, France, Spain and Sweden differences are small. However, in other countries (especially of the North), SHARE appears to lead to poverty more than twice that of the ECHP, though this is often due to very low values for the ECHP rather than high estimates in SHARE. For the group of working age (50-64) differences are larger. Though more investigation of this feature is necessary, it is probable that divergences may be related to the complexity of income composition. In countries where

![Figure 2](Poverty in the SHARE sample – 2001 ECHP age poverty line correction applied)
pensions and labour income account for larger portions of income, differences are smaller. A further factor possibly explaining differences is the net income concept employed; if median net incomes are overestimated this would lead to higher computed poverty lines. Finally, serious consideration should be given to the fact that, though strict comparability across countries of the questions posed on income was maintained in SHARE, the same did not hold for the ECHP; ECHP participants phrased the question used in radically different ways. For instance some countries estimated net income, others gross income, while the extent of imputations used also varied by country.

<table>
<thead>
<tr>
<th>MEMO</th>
<th>Correction factor to poverty line</th>
<th>Over 65 pover</th>
<th>50-64 pover</th>
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<tbody>
<tr>
<td>SE</td>
<td>7.7%</td>
<td>16.7</td>
<td>16</td>
</tr>
<tr>
<td>DK</td>
<td>-5.1%</td>
<td>39.0</td>
<td>24</td>
</tr>
<tr>
<td>DE</td>
<td>3.6%</td>
<td>23.7</td>
<td>12</td>
</tr>
<tr>
<td>NL</td>
<td>7.7%</td>
<td>18.5</td>
<td>4</td>
</tr>
<tr>
<td>CH</td>
<td>- (2)</td>
<td>(29.0)</td>
<td>-</td>
</tr>
<tr>
<td>FR</td>
<td>2.8%</td>
<td>19.6</td>
<td>19</td>
</tr>
<tr>
<td>AT</td>
<td>1.8%</td>
<td>19.4</td>
<td>24</td>
</tr>
<tr>
<td>IT</td>
<td>2.2%</td>
<td>26.6</td>
<td>17</td>
</tr>
<tr>
<td>ES</td>
<td>5.4%</td>
<td>20.6</td>
<td>22</td>
</tr>
<tr>
<td>GR</td>
<td>-5.4%</td>
<td>31.5</td>
<td>33</td>
</tr>
</tbody>
</table>

Notes: SHARE and ECHP 2001 data. 1: See text for definition – ECHP 2001 data. 2: No ECHP data available for Switzerland.

It is worth dwelling a little in the case of Denmark. As is evident from Diagrams 1 and 2, the choice of poverty line makes a large difference: there is a concentration of incomes between the 50% median and the 60% median line, probably caused by features of the Danish social protection system (e.g. the value of the age pension). The finding of large poverty rates, especially among the over 65s is corroborated by the ECHP; in the 1998 wave the 65+ poverty rate reached 31 per cent. As CEC 2002 makes clear, narrow income-based definitions of poverty ignore features of social protection systems such as the provision of benefits in kind; these may increase well-being but are not counted in the income concept used in the ECHP and other sample surveys. Given that social protection after retirement often involves the substitution of in kind benefits for cash income, such is a potentially serious shortcoming in the study of social problems associated with ageing. A full analysis using SHARE data may allow investigation of this hypothesis and the exploration of income concepts that make a fuller allowance for social protection systems.

The overall message of SHARE is that poverty may be a more serious issue than in the ECHP. In some cases the SHARE results appear fully compatible with the ECHP, in others considerable divergences arise, whose sources warrant investigation before final conclusions are drawn. Understanding the cause of difference could leave to symmetric adjustments: it may imply the need for greater refinements in SHARE, but it may also conclude that SHARE was more successful in recording incomes that are particularly relevant for the older population. SHARE may therefore be able to capture income inequality in old age to a greater extent than ECHP. Whatever the case, apart from noting this intriguing divergence, it is too early to settle on firm conclusions on the mechanisms driving it.
Turning to the question of how poverty changes between the group still of working age (50-65) and those over 65, the countries fall in three groups, regardless of whether an age correction is applied or not: In one (GR, DK and SE) the group over 65 appear to be at substantially greater poverty risk than the younger group. In the larger, second group, increased age is associated with negligible differences. Finally, in two countries (AT and ES) poverty in SHARE (though not in the ECHP) is significantly lower in the older group.

These differences are due to a complex interplay of individual retirement, work and savings decisions, household composition effects and operation of social protection systems. Equally importantly, cohort effects are conflated with age effects in such a way that we cannot express any final opinion on the two key policy questions underlying the analysis: Do social protection system protect the old adequately? And will the coming generation of old be better prepared for old age than the current generation?

*Figure 3 Poverty Differences by age groups: Differences 50-64 and 65*
Living in Your Own Home and Poverty

Living in your own home protects you from one of the most socially damaging effects of income insecurity – the fear of being homeless. As a result an owner occupier is in significantly better position than a renter with the same income. Income measures which ignore this are likely to portray the condition of owner occupiers as appreciably worse. In cases (common in the South of Europe) where significant numbers of the poor live in their own house, not allowing for this imputed rent is likely to significantly bias computed poverty rates (see, for instance CEC 2004). This effect is likely to be more marked in groups such as the old who are less likely both to be tenants, and to have mortgages outstanding.

A full analysis of the effect of housing on poverty should also try to model the effect of social housing and other kinds of subsidised accommodation. However, at this stage of the analysis it is as well to start with the effect of adding imputed rent to the data of the distribution of Figure 1. As a first approximation imputed rent was estimated using the short-cut of assuming it is close to 4% of house values as reported by the respondent. It also reports the absolute effects on the data (a negative figure signals a fall in poverty rates by the specified amount).

<table>
<thead>
<tr>
<th>Table 2</th>
<th>SHARE Poverty Rates – The Effect of Imputed Rent (total sample and by large age group)</th>
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<tbody>
<tr>
<td></td>
<td>Poverty rates (%) if imputed rent is taken into account</td>
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<tr>
<td></td>
<td>Total SHARE population</td>
</tr>
<tr>
<td>SE</td>
<td>17.2%</td>
</tr>
<tr>
<td>DK</td>
<td>21.6%</td>
</tr>
<tr>
<td>DE</td>
<td>25.5%</td>
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<tr>
<td>NL</td>
<td>22.4%</td>
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<tr>
<td>FR</td>
<td>20.9%</td>
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<tr>
<td>CH</td>
<td>28.8%</td>
</tr>
<tr>
<td>AT</td>
<td>24.3%</td>
</tr>
<tr>
<td>IT</td>
<td>27.7%</td>
</tr>
<tr>
<td>ES</td>
<td>26.5%</td>
</tr>
<tr>
<td>GR</td>
<td>25.1%</td>
</tr>
</tbody>
</table>

Note: See text for definition of housing income

Adding imputed rent increases incomes of the population. In the actual case, where more than 50% of the population are owner-occupiers, it also increases the population median and hence the poverty line. Thus, it is possible for poverty to increase, even if all the poor are owner-occupiers, so long as the middle classes choose to live in proportionately better houses (so that poverty lines increases by more than the poor’s incomes). Indeed, this seems to be happening as the proportionate increase in medians is in many countries sizeable.

The data of Table 2, indeed show just such an intricate pattern. There is a definite North-South gradient with the effect of owner occupation significantly reducing poverty rates in the South, by almost three points in Greece. The relative country rankings alter considerably. It appears that the effect is differentiated by age: Adding the effect of owner occupation reduces poverty in the 50-65 age group in all countries (except in DK and CH). In the
older age group, this observation is reversed: Only CH, GR, IT show a fall in poverty, all other countries increasing – by a maximum of 1.4 percentage points (AT). Whatever the precise interpretation, the investigation of housing effects on income is a fruitful area of investigation, precisely because it impinges on poverty differences between age groups.

**Living with One’s Children as Social Protection**

Household composition and cohabitation with children is probably the oldest social protection mechanism for old age. Figure 4 looks at the cases where the respondent lives in the same household, or, quite importantly for social relations, in the same building as offspring. The analysis is confined to the over-65s, as cohabitation with a child in a younger age group may probably mean dependency of the child on the parent and not vice versa.

Figure 4 confirms the use of cohabitation as a social protection mechanism in the South of Europe: the propensity to live with one’s children is associated with poverty status. What is less usually appreciated is that this mechanism extends to living in the same building in separate households; the latter is very important in Germany and Austria. In three countries more than half of the over 65 population live in the same building, while in five it is more than 40%. The full story of poverty cannot be told if cohabitation is ignored.

Contributions 4.2 and 4.3 on time-related and financial transfers paint a picture of a web of transfers between households. The density of relations increases the probability to receive (possibly later on), rather than a simple mechanism providing aid in cases of low income. Nevertheless, in at least one case (Greece), transfers as poverty alleviation are visible: 20% of the poor aged receive financial transfers, while poverty status affects the probability of receiving appreciably. A multivariate analysis employing SHARE data may investigate such informal support networks.

![Figure 4](image-url)

**Figure 4** Household composition and poverty for people over 65: Proximity to nearest living child

**Conclusions and Taking the Analysis Forward**

The analysis of the previous section gave an impression of the kind of insights that SHARE can bring:

- An intriguing possibility emerges that financial poverty may be more serious, than we
thought. The investigation of non-financial dimensions thus acquires greater significance.

- Though in the majority of countries there is no significant difference in financial poverty in the 65+ group, in three cases there was apparent deterioration (and in two improvement). This may be linked to the substitution of services and goods in kind for monetary income after retirement.

- Imputed rent has a considerable influence in limiting poverty, especially in the South.

- Living close to one’s children, in the same household or the same building, remains a very important mechanism of social solidarity with an important poverty alleviation role, not only in the South but also in Germany.

Realising the full potential of SHARE implies further work in three directions:

First, data calibration. Once points of contact and divergence between SHARE and the sources of the “stylised facts” are clarified, ongoing policy processes such as social inclusion and pension strategy can absorb new insights without compromising existing understanding.

Second, SHARE can be used to derive comparable indicators in many of the ‘grey areas’ of the open method of co-ordination process, fleshing out the multidimensionality of poverty. Access to health services, the problem of take-up of social benefits and the nature of informal social networks are all issues that have received much comment in policy discussion but are very imperfectly measured.

The third area is presupposes that SHARE follows the example of European sources such as SILC in acquiring a time dimension. Poverty persistence and dynamic mechanisms generating and perpetuating poverty, but also the relationship between health and poverty are the kind of issues that will benefit most from panel data.

The introduction, posed the central question: will poverty in the future be similar to that today? SHARE gives us a snapshot and can allow us to sketch possible alternative scenarios. Deciding between those scenarios must await the addition of a time dimension.

References

1 The word ‘risk’ concedes that the demarcation line is ‘fuzzy’ – that there is a range of incomes where the risk of poverty is present even if some in this range might not consider themselves as ‘poor’.

2 Allowing for imputed rents can be expected to produce greater reduction in poverty for the whole population: if the young (who are excluded in SHARE) are more likely to be renters, the median income will increase by less. This would lead to a greater poverty dampening effect among the 50+ population.
6.3 Wealth and Portfolio Composition
Dimitrios Christelis, Tullio Jappelli, and Mario Padula

Introduction
Financial wealth, real estate, and other assets are key indicators of the well-being and quality of life of the elderly. This contribution provides basic facts on wealth amounts, wealth composition, and financial asset ownership of the elderly in Europe. Because of the demographic trends, the saving behaviour of the elderly and their portfolio holdings are central to the policy debate. While income and consumption are important determinants of current well-being, assets are a key indicator of future, sustainable consumption. SHARE allows the study of the composition of wealth around and after retirement, and the distribution of wealth in real and financial assets, and the extent to which the wealth of the elderly is annuitised through pensions, social security, and health insurance.

There are a number of further reasons for considering wealth as a key indicator of well-being in old age. Most people save for retirement, and reach retirement age with considerable amounts of assets. These assets provide income for the elderly in the form of rents from real estate, interests on government and other bonds, dividends from stocks. The same assets can be spent during the retirement period and converted into a flow of consumption. Conversely, if people do not save enough for retirement, they will not have enough resources to finance later consumption, a problem that has come to be known as adequacy of saving at retirement. Furthermore, wealth can provide a buffer to protect the elderly against health and other risks, which is very important at times when the length of life is increasing together with the cost of health care.

A related issue is the appropriate asset mix during retirement between low-risk saving vehicles, insurance policies, and risky financial assets. People do not rely solely on financial assets in order to provide for their old age but also on real assets, with housing being the most important among them. With respect to portfolio choice, the elderly face higher mortality and morbidity risks compared to the young, which should make the portfolio of the elderly different from that of the rest of the population. How large is this difference and how it varies across Europe depends on the public coverage of health care and the working and generosity of public pension systems. On these and related issues, SHARE provides fresh evidence in comparative fashion.

Data
Respondents in SHARE are all household members aged 50 and over, plus their spouses, regardless of age. Financial and housing respondents are those household members most responsible for financial and housing matters, respectively. This is done to save time and avoid duplications. For instance, in a couple the financial questions are preferably answered by one person only, unless finances are not jointly managed, in which case each household member is treated as a separate financial unit.

The questionnaire covers a wide range of financial and real assets, from which one can calculate wealth and its components, and is designed to make the asset definition comparable across countries. Financial assets include seven broad categories: bank and other transaction accounts, government and corporate bonds, stocks, mutual funds, individual retirement accounts, contractual savings for housing, and life insurance policies. The real assets are primary and other residences, own business and vehicles.

For each financial asset category respondents are asked whether they hold any assets in
this category. If so, they are asked to give a value for their total holdings in the category. Respondents who refuse to respond or answer “don’t know” at this stage are then routed into unfolding brackets—a short series of follow-up questions of the form “Is it more or less than...euro?” For instance, survey participants in Germany who do not report their bank account balance are asked if the amount is larger or smaller than €3,600. If it is larger, they are asked if it is larger than €7,100.

The asset module in SHARE has also questions on household liabilities, such as mortgages and other debts on cars, credit cards or towards banks, building societies and other financial institutions. For both mortgages and housing, if the point value is not available, the respondents are routed into the unfolding brackets.

Net Worth and Gross Financial Assets

The detailed asset and liabilities questions contained in SHARE can be used to construct several indicators of the well being of the elderly. A first indicator refers to resources that are liquid, or can be sold in the market. Thus, we define total gross financial assets, as the sum of the seven categories of financial assets listed above. A second indicator is total real assets, defined as the sum of the four real assets categories. In case of need or financial distress, real assets can be sold and their value converted in financial assets, but this very often requires time and effort. A third indicator is total liabilities, defined as the sum of all household debts; this is an indicator of financial obligations of the household, and in some cases of financial distress. Finally, total net worth, defined as the sum of all financial and real assets, minus liabilities, is a summary indicator of all resources that are available to household members. These can be used to finance normal retirement consumption, to buffer health and other risks the elderly face, or can be left as a bequest to future generations.

This contribution focuses primarily on total net worth and financial wealth as key indicators of the well being of the elderly in Europe. To ensure cross-country comparability, the amounts are corrected for differences in the purchasing power of money across countries. Some definitions and imputations are provided in Chapter 7. In order to avoid the effect on cross-country comparison of households with influential values for wealth, we report medians rather than means of the relevant indicators.

Figure 1 plots median net worth across European countries. Countries can be divided in four groups. In a first group, the elderly have relatively high wealth: Switzerland, Spain, and Italy (above €140,000). The second group, with wealth between €120,000 and €140,000, includes France and the Netherlands. The third group, with wealth between €100,000 and €120,000 includes Austria, Denmark and Greece. Finally, in Germany and Sweden median net worth is below €100,000. It has to be noted however that the purchasing power adjustment has a significant negative effect on the net worth of Swiss, Danish and Swedish households because of the high price levels that prevail in their respective countries. Without this adjustment the median net worth in these countries would be substantially higher. The opposite holds for countries like Greece and Spain, which have lower price levels than the average of the SHARE countries.
Figure 1  Median net worth (thousands of PPP euro)

Note: The map displays median total wealth (real plus financial) in Europe. Total wealth is the sum of real and gross financial wealth minus liabilities. Amounts are expressed in thousands of euro and adjusted for the difference in the price levels across countries [purchasing power price (PPP) adjustment].
Figure 2 Median gross financial assets (thousands of PPP euro)

Note: The map displays median gross financial assets in Europe. Gross financial assets are the sum of bank and other transaction accounts, government and corporate bonds, stocks, mutual funds, individual retirement accounts, contractual savings for housing, and life insurance policies. Amounts are expressed in thousands of euro and adjusted for the difference in the price levels across countries (purchasing power price (PPP) adjustment).
The cross-country comparison of total net worth hides significant differences in the composition of net worth. Figure 2 documents that total financial wealth is generally higher in the North than in the South of Europe. According to this indicator, the first group of countries (financial wealth above €30,000) includes Denmark and Switzerland. Next come Sweden (between €20,000 and €30,000), and Germany and Netherlands (between €10,000 and €20,000). The group of countries with lower level of median financial wealth per household (less than €10,000) includes Austria, Italy, Greece, France and Spain. These low amounts for the Mediterranean countries and Austria reflect in part the very low ownership rate in those countries of any financial assets other than bank accounts (e.g., in Greece) and in part the relative high weight of residential and other real estate wealth (e.g., in Italy and Spain).

A comparison between the two pictures makes it clear that the cross-country distribution of gross financial assets does not parallel that of net worth. While the elderly have relatively little financial wealth in Italy and Spain, it is precisely in these countries that we see the highest levels of total net worth. The reason is that real estate, and primary residence in particular, makes for a large chunk of wealth in Italy, Spain and other countries. This raises an issue of adequacy of saving if pension income is limited and reverse mortgage markets are underdeveloped, since financial assets can be a very important vehicle for countering the financial difficulties of old age.

On the whole, whether this pattern of net worth and financial wealth reflects different attitudes toward saving between Southern and Northern Europe, different intensity of bequest motives, different features of the mortgage markets, or different characteristics and transaction costs in housing and financial markets is an interesting issue to be investigated. In particular, the balance between private and public pensions and the availability of public health care is likely to affect the desired amount of wealth of the elderly, a possibility that the multi-domain and cross-country nature of SHARE will help to explore.

The Composition of Financial Wealth

Figure 3 plots the proportion of households owning bonds, stocks, mutual funds and life-insurance policies. For bonds, stocks and mutual funds, the graph shows that ownership increases from South to North, with countries like The Netherlands, Germany and Austria lying often in the middle. The proportion of households holding bonds ranges from 0.1 percent in Spain to 24 percent in Denmark; the proportion holding stocks ranges from 3.0 of Spanish households to 38 percent of Swedish households. The ranking is similar for mutual funds, while for life insurance policies the dispersion across European countries is much lower. Except for Italy, Spain and Greece, the proportion of households with life insurance exceeds 10 percent in all countries.

Other financial assets are less widely owned across Europe. Individual retirement accounts are common only in Sweden, Denmark and France, while contractual savings for housing are extremely popular in Austria, to a lesser extent in Germany, France and the Netherlands and practically non-existent everywhere else (see Banks and Smith 2001 for comparative evidence for the UK).
Wealth and Portfolio Composition

The mix between risky (stocks) and relatively safe assets (transaction accounts and bonds) signals the overall riskiness of financial portfolios. This can be measured by the ratio of total risky assets—defined as direct holding of stocks and indirect holdings through mutual funds and investment accounts—and total financial assets. Figure 4 shows that in Sweden (more than 40% of financial wealth invested in risky assets) and Switzerland (between 20 and 30%) the elderly are more exposed to financial risk. In all other countries risk exposure is more limited: between 10 and 20% of total financial assets in Denmark, Germany, Netherlands, France, Austria, Italy and Greece, and less than 10% in Spain. These countries are characterised by low direct and indirect stockholding, which is often explained as a result of transaction and information costs, an issue that SHARE data are particularly well suited to investigate.

In most countries the share of risky assets around retirement age is higher than in old age. This general pattern agrees with intuition. The elderly face increasing health risks, and should try to balance these risks holding a safer portfolio. Moreover, the investor’s horizon for an old person is shorter. For an old person it is much more difficult to recover from negative stock market returns, a prominent reason why they should tilt their financial towards safer assets. This is discussed extensively in Hurd (2001), who provides evidence on the portfolio of the elderly in the US.
SHARE also provides considerable evidence that stock market participation is affected by financial sophistication and literacy of individual investors. The proportion of individuals who spend some time in managing their financial portfolio at least once a week, as an indicator of how much time and effort people spend in understanding financial markets, is relatively high in the Netherlands (9.5 percent), Sweden (9.4 percent) and Germany (8.6 percent). Conversely, the proportion is much lower in Italy (4.1 percent), France (5.3 percent) and Spain (5.8 percent). For most countries the pattern of time spent in managing portfolios matches with that of asset participation in Figure 3. For instance, in the Neth-
erlands and Sweden the elderly exhibit high rates of financial market participation and monitor their portfolios more frequently. Conversely, in Italy and Spain the relatively low degree of monitoring goes hand-in-hand with lower financial market participation. This association may happen because monitoring financial wealth improves investors’ knowledge and sophistication and portfolio diversification. An equally valid explanation is that more complex portfolios require more time to be managed.

**Conclusions**

SHARE data indicate that total net worth varies much less than total financial wealth across Europe. In addition, we find that a high percentage of households holds virtually no financial assets. Asset ownership exhibits considerable variability across countries, as bonds, stocks and mutual funds are much more popular in Nordic than in Mediterranean countries. Exposure to financial risk is higher in Sweden and Switzerland, and comparatively low in Southern Europe.

**References**


Introduction

An important question in relation to ageing in Europe is whether people have sufficient economic resources to maintain their material living standards as they grow older and retire from the labour market. To answer the question we need a measure of the material well-being of individuals and consumption is usually considered as being the best direct measure of this. The theory behind this is that of a traditional life-cycle model according to which individuals throughout their lives allocate income to consumption expenditures and savings in order to keep their material standard of living at a constant level. For individuals whose main source of income is from labour this means that income decreases around retirement whereas consumption remains more or less at the same level. So these individuals finance consumption in retirement by savings made during their working life such that their living standard remains unchanged. This explains why consumption as opposed to income is thought as being the adequate measure of the material well-being of individuals, in particular older individuals.

In principle it should be possible to obtain information on individual household consumption from national expenditure surveys. However, these are not easily accessible for persons outside the country and in many countries they are based on relatively small samples making it difficult to obtain useful information about the consumption expenditures of 50+ households. Therefore the consumption information in SHARE has the potential of becoming an important data source in the analysis of consumption of older households in Europe since it provides a measure of consumption that is immediately available and comparable across countries making it possible to point out differences and similarities. Furthermore, SHARE also contains various measures of both physical and mental health which are usually not available in expenditure surveys. Hence, SHARE provides a unique opportunity to investigate the relationship between health outcomes and material well-being as measured by consumption.

The information on consumption from SHARE will be even more interesting and useful when longitudinal information following the same individuals over time hopefully will be available in the future. At this point, it is only possible to provide cross-sectional evidence on consumption among older people in the countries participating in SHARE and it is important to keep in mind that the consumption pattern of older individuals today does not necessarily provide a good description of that of older individuals in the future. In order to analyse the effect of ageing and retirement for specific individuals in detail we need longitudinal information following the same individuals over time, especially before and after retirement.

Measuring Consumption

In SHARE the respondents are asked about their household’s expenditure on the following three different sub-groups of consumption: Food consumed at home, food consumed outside the home, and telephoning. In addition they are asked about the total expenditure on non-durable goods and services. The respondents are asked to include groceries, utilities, transportation, clothing, entertainment, out-of-pocket medical expenses and any other expenses the household may have and to exclude housing payments (rent or mortgage), housing maintenance, and the purchase of large items such as cars, televi-
Consumption, jewellery and furniture. While there seem to be a general agreement that recall questions provide good measures of food consumption there is some dispute about how useful recall questions about total non-durable expenditures are. For the respondents it is simply a difficult question to answer and maybe even to understand. A preliminary analysis of the total non-durable expenditures from SHARE shows that the respondents under-report this expenditure by large amounts. This is consistent with the findings in Browning, Crossley, and Weber (2003) on Italian and Canadian data. However their analysis shows that the under-reporting is very systematic which in turn leaves hope for being able to correct for the bias. Given the problems with total non-durable expenditures, the following will only provide an analysis of food consumption based on expenditures on food at home. Tables 6A.4-6A.7 in the appendix to this chapter shows the data presented in the following.

**Food Consumption**

In rich countries the consumption of food corresponds to approximately 20-25% of the total consumption expenditures of households and hence food is an important component when using total consumption as a measure of living standards. In addition to that food is an essential good which all people need in certain quantities in order to survive and therefore it is of interest in itself. As mentioned above, SHARE is the first study that provides immediately comparable information about food consumption in a number of European countries.

In the following we consider food at home consumption defined as household expenditure on food and non-alcoholic beverages consumed at home. Before transforming the expenditure measure into a consumption measure we consider food at home expenditures. To make these expenditures comparable across households of different sizes we consider the food expenditure per capita. One argument in favour of using this scale is that food is almost entirely a private good that can not be shared between members of the household. On the other hand, it might be cheaper and it might only be possible to buy food in larger quantities and hence there is scope for economies of scale. Also the per capita measure is not appropriate for households with younger children since they need less in terms of food consumption. However since we consider 50+ households, the fraction of households with young children is relatively small. Altogether it is not clear which equivalence scale should be used for the older households in SHARE and therefore we use the per capita measure when comparing all types of households.

Figure 1 shows the distribution of monthly per capita expenditure on food at home across countries. The orange bars span the interquartile range and their ends represent the 25th and 75th percentile points of the distribution within each country. The horizontal lines within these bars represent the median which divide the population within each country into two halves of equal size with 50% of the population having food expenditures above this line and 50% having food expenditures below this line. Finally, the ends of the thin lines represent the upper and lower adjacent values of the distribution within each country giving a picture of the range of values.

Figure 1 shows that the distribution of per capita expenditures on food look remarkably similar for many of the countries. Denmark, Germany, Netherlands, France, Austria and Italy all have median levels around 200 euro per capita, Sweden, Spain and Greece have lower median levels whereas Switzerland has a higher median level. In addition, Figure 1 shows that within each country there is large variation in food expenditures.
In order to define food consumption and make it comparable across countries it is divided by the EUROSTAT price level index for food and non-alcoholic beverages based on a survey carried out in the spring of 2003, see EUROSTAT (2004). The price levels are calculated as the ratio between purchasing power parities (PPP) and exchange rates for each country in relation to the average in the countries in SHARE. The PPP is calculated as the nominal price within each country of a representative basket of goods covering approximately 450 products. The price level index is shown in Table 1 below. The table shows that within this group of countries Switzerland has the highest price of food, 40% higher than the average, and Spain has the lowest, 25% lower than the average. Some of the differences can be explained by differences in taxes and value added taxes (VAT) on food across countries. As an example a VAT rate on food of 25% in Denmark is the highest among these countries whereas that of 2.4% in Switzerland is the lowest. This partly explains the relative high prices in Denmark whereas it can not explain the high prices in Switzerland.

<table>
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<tr>
<th>Country</th>
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<th>FR</th>
<th>AT</th>
<th>DE</th>
<th>NL</th>
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<td>98</td>
<td>96</td>
<td>94</td>
<td>82</td>
<td>75</td>
</tr>
</tbody>
</table>

Figure 1 The distribution of the (weighted) per capita monthly expenditure on food at home across countries
Figure 2 shows the distribution of food consumption defined as the expenditure on food at home divided by the price level index.

There are a number of striking features of this figure. First of all, Sweden and Denmark have lower levels of per capita food consumption compared to all other countries. The median level is 30% lower in Sweden and 24% lower in Denmark compared to the overall median level for all countries. The differences and similarities between countries illustrated in Figure 2 could be the result of different demographic composition of the households across countries and the fact that the per capita measure might blur the comparisons across countries. For instance it could be the case there are relative many single women in Sweden and Denmark compared to other countries. If single women have lower food consumption compared to other household types this could explain the findings in Figure 2. The next figure shows that this is not the case.

Figure 3 shows the food at home consumption for different household types which are single women, single men and couples all without children. The figure shows the same pattern as in Figure 2 with respect to the differences between the countries, namely that food consumption is lower in Sweden and Denmark compared to the other countries, and the finding is even more striking when looking at these specific household types. Moreover it shows that the median level of food consumption tends to be higher for single men than for single women although the difference is not that big for some countries. The level food consumption for couples is clearly higher than that of singles even though not twice as high which suggests that there is some economies of scale.

So the differences and similarities across countries seem to be genuine. When thinking about explanations for the differences there are at least two obvious candidates. One is
differences in relative food prices across countries and the other is differences in income across countries. The latter explanation is not likely to shed light on the finding as the level of net income is higher in the northern countries compared to the southern countries, see Section 6.1 on household income in this book. This finding in itself suggests that food consumption should be higher in the northern countries compared to the southern countries, which is not what we observe. We are then left with cross-country differences in the price of food relative to the price of other goods as an explanation for the findings in Figures 2 and 3. Since measures of relative food prices are not immediately available, a detailed investigation of this issue can not be carried out for the time being but is left for future research. However, an indication that cross-country differences in the price of food relative to other goods might explain some of the findings is that all countries except Denmark have a reduced VAT rate on all or some food items making it likely that the relative price of food is higher in Denmark compared to other countries and therefore people in Denmark choose to consume less food.

Finally, Table 6A.6 shows the distribution of food consumption across age groups within each country. In order to avoid difficulties with comparisons of households of different types we only consider households consisting of singles and couples without children. The food consumption is equivalised taking singles as a benchmark and assuming that couples need 70% more in terms of food consumption to be equally well off. In households consisting of couples age refers to the age of the man. First of all, we see that the pattern across countries described above also appears across age groups. With respect to the relation between age and food consumption within a specific country there does not seem to be a common pattern in all countries. However, in many countries the distribution of food consumption looks very constant across age groups. This rules out that the findings in
Figures 2 and 3 can be explained by cross-country differences in labour force participation since most people above 70 years of age are no longer in the labour force.

**Self-Reported Economic Situation of the Households**

As described in the introduction consumption is usually thought of as being the best direct measure of the material living standard of individuals. Another possibility when carrying out a survey is to simply ask people what they think about their economic situation. In SHARE the respondents were asked to give an assessment of the ease with which their household can “make ends meet” on a 4-point scale. The following question was asked: “Thinking of your household's total monthly income, would you say that your household is able to make ends meet?” The answers are arranged on the following 4-point scale: (1) great difficulty, (2) some difficulty, (3) fairly easily, and (4) easily.

Figure 4 shows the percentage of households finding it difficult (great/some difficulty) to make ends meet across countries. As before we consider three groups of households within each country; single women, single men and couples all without children.

![Figure 4: Percentage of households finding it difficult to make ends meet across countries and household types](image)

The differences across groups of countries and across household types in Figure 4 are striking. More than 60% of the single women in the southern European countries (Italy, Spain and Greece) report finding it difficult to make ends meet whereas the corresponding number for couples in many of the non-southern countries (Sweden, Denmark, Netherlands, Switzerland and Austria) is less than 20%. This finding reflects two things. First, in the southern countries there is a much higher percentage of households finding it difficult to make ends meet than in the non-southern countries and this holds for both singles and couples. Second, in the non-southern countries the percentage of singles finding it difficult to make ends meet is larger than the percentage of couples whereas the numbers are more
similar in the southern countries. So the difference between the southern and non-southern countries is smaller for single women than for couples. As an example around 40% of single women and 13% of couples in Sweden report finding it difficult to make ends meet whereas the corresponding numbers for Greece are around 70% for both single women and couples.

The observed differences across countries should be interpreted with caution since it is not clear how much is genuine differences and how much is response scale variations, i.e. households that are equally well off give different answers to the question depending on in which country they live. However looking at Figure 4 it is not likely that the observed differences across countries are pure response scale variations since the pattern should then be the same for the three groups of households unless the response scale variations also vary between singles and couples. So even if comparisons across countries are not straightforward, comparisons between singles and couples within specific countries is likely to provide useful information.

Comparing the findings from Figure 4 with the distribution of food consumption across countries and across the same household types shown in Figure 3 clearly shows that one should not use food consumption in a comparison of the material living standard across countries. Across countries there is no relation at all between the percentage reporting finding it difficult to make ends meet and the level of food consumption. A possible explanation for this is that households experiencing temporary financial difficulties choose to cut back on the consumption of other goods and only to a less extent to cut back on the consumption of food. On the other hand, if a household is experiencing permanent financial difficulties then we would expect the level of food consumption to be lower, given that the level of food consumption is not already close to subsistence. Once we have longitudinal data in SHARE it will be possible to distinguish between households experiencing temporary and permanent difficulties and it will be very interesting to see how this is related to the level of food consumption.

Whereas the differences between southern and non-southern countries in Figure 4 are not related to the cross-country differences in the level of food consumption, they correspond to the cross-country differences in net income; see Figure 4 in Section 6.1 on household income in this book.

**Conclusion**

The SHARE data on consumption has revealed some very surprising and puzzling differences across countries that are yet to be explained. The results show that the level of food consumption is much lower in the northern countries (Sweden and Denmark) compared to all other countries. This is the opposite of what we would expect since incomes in the northern countries are higher than in the southern countries. As described above, some of the observed cross-country differences might be explained by cross-country differences in the price of food relative to the price of other goods. This and possibly other reasons for the differences will be investigated in detail in future work.

**References**


Introduction

Very often, income, consumption and wealth (I-C-W, hereafter) are considered on their own as good indicators of individual material well-being. The traditional life-cycle model introduced by Modigliani and Brumberg (1954) and Ando and Modigliani (1963) taught us that rational individuals will try to smooth consumption over their entire life, and, thus, they will save income to accumulate wealth when being young and consume their savings when being old. But several other factors affect wealth accumulation and consumption, among them uncertainty about the future, intergenerational transfers’ behaviour, health status and, last but not least, social protection schemes covering income and health care needs. As a consequence, the expected correlation among the three dimensions, I-C-W, is far from being perfect, particularly among “50 and plus” individuals facing retirement or already retired.

SHARE is one of the rare surveys focusing on these three dimensions simultaneously. The purpose is to try to understand what is the real situation of families and individuals across countries and socio-economic categories. For those of them still at work we are interested to know how they are preparing for old days’ consumption, and, for those already retired, how they meet their old age needs. We know that for some of them, facing liquidity constraints or bad health, consumption will be restricted, whereas others will be able to save from their current income, while a third group will be composed of net dissavers.

In this contribution, we are particularly interested in the distributive issues pertaining to these three dimensions taken together. In the first section we explain some data issues and methodological choices. The second section is devoted to the presentation of Lorenz curves and Gini coefficients by macro-regions and countries, and the third section to a comparative study of I-C-W distribution across age categories. Some conclusions and potential lines of research for the future end this contribution.

Data and Methodological Issues

Our starting point is the outcome of Sections 6.1 on income (Paccagnella and Weber), 6.3 on wealth (Christelis, Jappelli and Padula) and 6.4 on consumption (Browning and Madsen). More specifically, the data we use is the one computed by these specialised SHARE team groups on the basis of the original data. The I-C-W definitions we selected to be used in this contribution are as follows: income is defined as being the yearly net household income excluding imputed rent, consumption food consumption at home and outside home and wealth corresponds to net worth defined as the sum of financial and real wealth, net of debts. For details on these computations, the reader must refer to the corresponding contributions.

Our population comprises all the “50 and plus” individuals. To be able to present homogeneous results, we selected the households for which complete information on income, consumption and wealth was available. This can explain some minor differences with respect with other results presented in other contributions of this book. A household’s consumption, income and wealth are expressed in equivalent units using the OECD equivalence scale constructed as following: 1.0 for the household head, 0.5 for each other person aged 15 years old or more, and 0.3 for children aged less than 15 years old. Each individual in the household, including the “50 and plus”, is assumed to enjoy a standard
of living equal to the net household income divided by the equivalence scale. Moreover, consumption and wealth at the individual level are computed using the same procedure and equivalence scale. Note that consumption is here defined as food consumption (at home and outside home).

In order to proceed to comparisons across countries, all the values are transformed in equivalent PPP euro using purchasing power parity indices. They are also weighted to correct for sample bias and country population size. Three different European areas are distinguished: Northern (Denmark and Sweden), Central (Austria, France, Germany, Switzerland, and Netherlands) and Southern (Greece, Italy, and Spain) European countries.

Lorenz Curves and Gini Coefficients by Macro-Region and Country

The best instruments to study distributive issues are without doubt the Lorenz curve and the Gini coefficient associated with it. Lorenz curves have the cumulative percentage of the population on the horizontal axis, ordered from those with the lowest amounts (income, consumption or wealth) to those with the highest, and the accumulated percentage of the target variable, I-C-W on the vertical axis. In Figure 1, the I-C-W distributions are presented together for each of the selected European macro-regions and for the whole “50 and plus” population. They can be read as follows: the Lorenz curve regarding consumption in Northern Europe indicates that the 40% of the population with lowest food expenditures, together have about 23% of aggregate food consumption. Similarly, the 40% of the population with lowest incomes, together have about 20% of aggregate income (these need not be the same households as those with lowest food consumption), and the 70% of the population with the smallest wealth holding together possess about 25% of aggregate wealth. Therefore, the closer the curves are to the bottom-right corner of the graph, the larger inequality. Conversely, a Lorenz curve that coincides with the diagonal indicates total equality. The Gini coefficient summarises the observed distribution in one value, going from 0% (equal distribution) to 100% (full concentration: one person has all). Geometrically, the Gini is proportional to the area between the Lorenz curve and the diagonal. Understanding of the Gini coefficients is perhaps enhanced if one knows that the Gini for the USA overall income distribution (one of the most unequal ones in the OECD area) is 0.37, while that for egalitarian Sweden is 0.25. (Results from the Luxembourg Income Study: http://www.lisproject.org/keyfigures/ineqtable.htm.)

What do these Lorenz curves tell us? In the three macro-regions, as expected consumption is more evenly distributed than income, and income less unequal distributed than wealth. Net income comes mainly from work compensation, social transfers and returns on cumulated wealth, from which direct taxes are deducted. Most people try to smooth their consumption path over the life cycle, and for this purpose they save part of their income for old days. In the long run, differences in personal income and consumption behaviour, together with life circumstances, e.g. bequests and bad health, and market conditions are factors contributing to a more unequal wealth distribution.
Figure 1: Lorenz curves by macro-region

Income, Wealth and Consumption Inequality
Comparing the three macro-regions in Figure 1, the most remarkable facts are that in Northern countries income and consumption distributions are rather equal compared with Centre and Southern European regions and rather close to each other in Northern and Southern macro-regions compared to Central Europe. For Northern (Scandinavian) countries this results mainly from the less unequal distribution of net income and probably as a consequence of the efficient old-age coverage provided by social protection in these countries, where the “50 and plus” population has perhaps less need for precautionary saving behaviour.

But in order to have a more precise evaluation of these I-C-W distributions, the Gini coefficients will be more informative. They are reported in Table 1 together with specific country coefficients (Lorenz curves for individual countries are presented in the Appendix to this chapter).

First of all, the Gini coefficients corresponding to the situations presented in Figure 1 can be considered as a reference for further comparisons. For instance, the low unequal income and food consumption distributions observed in Northern countries correspond to Gini coefficients of 33% and 24%, respectively. These values are very close to those calculated at the national levels for Denmark and Sweden (see Table 1).

### Table 1

<table>
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<th>Wealth</th>
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<td>59%</td>
</tr>
<tr>
<td>Central Europe</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DE</td>
<td>6,867</td>
<td>46%</td>
<td>35%</td>
<td>63%</td>
</tr>
<tr>
<td>NL</td>
<td>1,825</td>
<td>42%</td>
<td>25%</td>
<td>62%</td>
</tr>
<tr>
<td>CH</td>
<td>1,741</td>
<td>49%</td>
<td>46%</td>
<td>65%</td>
</tr>
<tr>
<td>AT</td>
<td>743</td>
<td>47%</td>
<td>38%</td>
<td>63%</td>
</tr>
<tr>
<td>FR</td>
<td>1,589</td>
<td>51%</td>
<td>33%</td>
<td>58%</td>
</tr>
<tr>
<td>Southern Europe</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IT</td>
<td>4,021</td>
<td>47%</td>
<td>41%</td>
<td>65%</td>
</tr>
<tr>
<td>ES</td>
<td>1,445</td>
<td>41%</td>
<td>47%</td>
<td>64%</td>
</tr>
<tr>
<td>GR</td>
<td>897</td>
<td>56%</td>
<td>26%</td>
<td>68%</td>
</tr>
</tbody>
</table>

Among Central European countries, Germany shows a comparatively unequal wealth distribution (62%), combined with the lowest income and consumption Gini coefficients in the macro-regions, 42% and 25% respectively. Also we observe for Greece and Spain rather low Gini coefficients for consumption, but in this case the reason is the relative lower coverage offered by social protection schemes and as a consequence, lower levels of consumption expenditures (see Contribution 6.4). Moreover, Greece presents the least unequal wealth distribution (52%), while Spain has the highest inequality in income (56%), among all countries participating in the first wave of SHARE.
Inequalities Across Age Categories

In Table 2 we report Gini coefficients by age categories within each macro-region. What can we learn from these results? First of all, in Central and Southern European regions wealth inequality increases dramatically with age, while income inequality tends to decrease. Second, that in Northern European countries the low rate of income inequality reported before is also observed across all age categories. Third, the observation that differences in social protection systems cannot be the only explanation for these results; also labour market regulations that allow aged workers to retire later (see Brugiavini et al., Contribution 5.1) are at work. Certainly these regulations play indirectly a great role in favour of the social integration of older individuals, giving them the opportunity to maintain higher incomes, earnings and pensions, up to end of their lives. Finally, it is possible that part of the differences observed across age categories correspond to cohort effects, particularly for the 50-59 years old generation born after the Second World War and therefore mainly composed of baby boomers. But age and cohort distributive effects cannot be disentangled from the available data. For this purpose following waves of SHARE will be necessary.

<table>
<thead>
<tr>
<th>Macro-Region</th>
<th>Age</th>
<th>N</th>
<th>Income</th>
<th>Consumption</th>
<th>Wealth</th>
</tr>
</thead>
<tbody>
<tr>
<td>Northern Europe</td>
<td>50-59</td>
<td>1,149</td>
<td>31%</td>
<td>23%</td>
<td>62%</td>
</tr>
<tr>
<td></td>
<td>60-69</td>
<td>939</td>
<td>31%</td>
<td>24%</td>
<td>54%</td>
</tr>
<tr>
<td></td>
<td>70-79</td>
<td>609</td>
<td>32%</td>
<td>23%</td>
<td>62%</td>
</tr>
<tr>
<td></td>
<td>80+</td>
<td>284</td>
<td>33%</td>
<td>27%</td>
<td>63%</td>
</tr>
<tr>
<td>Central Europe</td>
<td>50-59</td>
<td>2,572</td>
<td>45%</td>
<td>32%</td>
<td>60%</td>
</tr>
<tr>
<td></td>
<td>60-69</td>
<td>2,366</td>
<td>48%</td>
<td>36%</td>
<td>59%</td>
</tr>
<tr>
<td></td>
<td>70-79</td>
<td>1,403</td>
<td>41%</td>
<td>36%</td>
<td>68%</td>
</tr>
<tr>
<td></td>
<td>80+</td>
<td>526</td>
<td>39%</td>
<td>36%</td>
<td>72%</td>
</tr>
<tr>
<td>Southern Europe</td>
<td>50-59</td>
<td>1,368</td>
<td>51%</td>
<td>37%</td>
<td>61%</td>
</tr>
<tr>
<td></td>
<td>60-69</td>
<td>1,322</td>
<td>43%</td>
<td>41%</td>
<td>61%</td>
</tr>
<tr>
<td></td>
<td>70-79</td>
<td>960</td>
<td>47%</td>
<td>42%</td>
<td>68%</td>
</tr>
<tr>
<td></td>
<td>80+</td>
<td>371</td>
<td>36%</td>
<td>40%</td>
<td>73%</td>
</tr>
</tbody>
</table>

Nevertheless, in order to have a better understanding of the situation faced by age categories in terms of living conditions in Europe, we present, in Table 3, income, consumption and wealth average values making the distinction between three income categories in the “50 and plus” European population (see Tables 6A.8-6A.10 for results by macro-region). These categories are Low income (5 to 25 percentiles), Middle income (40 to 60 percentiles) and High income (75 to 95 percentiles). To some extent the amounts reported in Table 3 might be considered as representative of the ageing I-C-W pathways in each of these income categories even if, as indicated before, they correspond to the different generations (cohorts) surveyed in 2004.

What clearly appears from these results is that for a large portion of European “50 and plus” individuals, those belonging to the first quartile of the income distribution, consum-
Socio-Economic Status

Consumption is seriously constrained by current income availability, particularly for the 50-59 years old category for which annual median net income and food consumption are 5,300 and 3,025 euro, respectively.

The results presented in Table 3 also show that median net wealth is higher than 50,000 euro in most cases, independently of age and income categories. No doubts, even if the consumption amounts reported here correspond to food consumption, accumulated wealth potentially allows most of European aged people to finance consumption needs on their own for rather long periods, included those in the Low income group. Nevertheless, as generally accumulated wealth corresponds to the family house they own and the annuity markets are not well developed, at the end of the day many of them are both, income and consumption constrained. This is particularly the case in the Southern macro-region, as reported in Table 6A.10.

<table>
<thead>
<tr>
<th>Table 3</th>
<th>Median Values by Income Categories: All Countries (PPP euro)</th>
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<tbody>
<tr>
<td>Income Categories</td>
<td>Age</td>
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<tr>
<td>Low Income (5-25 percentiles)</td>
<td>50-59</td>
</tr>
<tr>
<td></td>
<td>60-69</td>
</tr>
<tr>
<td></td>
<td>70-79</td>
</tr>
<tr>
<td></td>
<td>80+</td>
</tr>
<tr>
<td>Middle Income (40-60 percentiles)</td>
<td>50-59</td>
</tr>
<tr>
<td></td>
<td>60-69</td>
</tr>
<tr>
<td></td>
<td>70-79</td>
</tr>
<tr>
<td></td>
<td>80+</td>
</tr>
<tr>
<td>High Income (75-95 percentiles)</td>
<td>50-59</td>
</tr>
<tr>
<td></td>
<td>60-69</td>
</tr>
<tr>
<td></td>
<td>70-79</td>
</tr>
<tr>
<td></td>
<td>80+</td>
</tr>
</tbody>
</table>

Conclusions

As expected, in all countries wealth inequality is higher than income inequality, and income inequality is higher than consumption inequality. But huge differences appear between the more egalitarian Northern countries, and the rest of European countries participating in SHARE. We hypothesise that the unequal development of social protection nets, on one side, and the national regulations affecting labour force participation among the “50 and plus”, on the other side, can explain most of the differences observed across countries, as well as across age and income categories. But this is part of the open SHARE agenda for future work, as are the study of the potential links between income, consumption and wealth inequalities and other dimensions of inequality detected in health and dependency status, as well as in family and social support.
References
6.6 Expectations
Luigi Guiso, Andrea Tiseno, and Joachim Winter

Introduction

Households’ beliefs about future events play a central role in forward-looking models of decision-making. Examples of probability beliefs that may affect individual decisions related to ageing abound. They include beliefs about mortality risks, beliefs about the future value of retirement portfolios of stocks, bonds, and—most importantly for PAYG systems—social security benefits, and beliefs about receiving or leaving bequests. Obtaining reliable measures of households’ beliefs with respect to future events has been at the centre of much research in survey design and analysis over the past decades (see Manski 2004, for an overview of the literature).

There is now a broad consensus that data about households’ beliefs should be obtained using probability formats (rather than using discrete response alternatives and verbal descriptors such as “very likely”, “likely”, and “somewhat unlikely”). The idea that probabilistic elicitation of expectations might improve on the traditional qualitative approaches of attitudinal research appears to have originated with Juster (1966). After some history in market research, probabilistic expectations questions have been used successfully in economic surveys since the early 1990s (Dominitz and Manski 1997, 2004). In the United States, the Health and Retirement Study (HRS) has pioneered asking questions about subjective probability beliefs on a wide variety of topics, including general events (e.g., economic depression, stock market prices, weather); events with personal information (e.g., survival to a given age, entry into a nursing home), events with personal control (e.g., retirement, bequests). SHARE has endorsed this view: most expectations questions are about the probability individuals subjectively assign to relevant events.

Elicitation of probabilistic expectations has several a priori desirable features. Perhaps the most basic attraction is that probability provides a well-defined numerical scale for responses and this makes it easier to compare responses across individuals. A second attraction is that an empirical assessment of the internal consistency and external accuracy of respondents’ expectations is possible, since in principle one can compare subjectively reported probability with objective calculations of the relevant events (e.g. survival probabilities conditional on age). A third consideration is the usefulness of elicited expectations in predicting prospective outcomes. As argued by Juster (1966), numerical responses to probability questions should have more predictive power than do categorical responses to qualitative expectations questions. With respect to several aspects of economic behaviour, including ageing and life-cycle behaviour, research by Dominitz and Manski (1997, 2004), Gan, Hurd, and McFadden (2003), and others confirms that responses to probabilistic questions indeed have predictive power. For example, responses to a question about subjective mortality risk are generally predictive for subsequent mortality experience (Hurd and McGarry 1995, 2002; Smith, Taylor, and Sloan 2001) and more predictive for savings behaviour than objective life table hazard rates (Hurd, McFadden, and Gan 1998).

SHARE 2004 elicits expectation on three major topics which have been selected for their policy relevance for this particular segment of the population. They are: the future of the pension reform, expectations about future living standards, expectations about survival probabilities and expectations about bequests and transfers. Though the set subjective probability questions asked is smaller than in recent HRS waves, they cover the main topics of concern for the elderly. In this contribution we report on the first three and leave...
the discussion of expected bequest to Contribution 4.4 which focuses on intergenerational transfers.

Starting Up

In a large household survey, a block of probabilistic expectations questions typically begins with an explanation of the response format and a warm-up question. In SHARE 2004 this introduction and the warm-up question were worded as follows: “I have some questions about how likely you think various events might be. When I ask a question I’d like for you to give me a number from 0 to 100. Let’s try an example together and start with the weather. What do you think the chances are that it will be sunny tomorrow? For example, ‘90’ would mean a 90 percent chance of sunny weather. You can say any number from 0 to 100.” While this question is not of particular substantive interest for the purpose of SHARE, it is useful as a “warm-up” question that gets respondents acquainted with the probability format used in the subsequent sequence of subjective expectations questions. Moreover, from a methodological perspective this question has the advantage that objective information on the probability of a sunny day can be obtained for each interview date and location from official weather forecasts, at least in principle.

![Figure 1: Chances for a sunny day tomorrow](image)

*Note: This graph shows, by country, the mean response to the question on how likely it is that “it will be sunny tomorrow” (vertical axis) and the mean hours of sunshine per day in the largest city of the country, normalised by the average length of daytime (horizontal axis).*

Given the cross-country design of the SHARE study, one can look at the responses to the “sunny day” question by country to check that respondents’ stated beliefs reflect the cross-country variation in actual average sunshine probabilities. As an objective measure of the sunshine probability for each month and country, we use the mean hours of sunshine per day in the largest city of that country normalised by the average length of daytime in this city. This objective measure is of course only a proxy for the actual sunshine probability at each respondent’s interview location and date, due to variations in weather and length of daytime within countries and the randomness of the weather itself. Neverthe-
Socio-Economic Status

less, at the level of the individual respondent the correlation between the response to the “sunny day” question and our objective measure of the sunshine probability is relatively strong at 0.275 (p<0.000). Figure 1 shows for each country the mean response to the “sunny day” question (vertical axis) and our objective measure (horizontal axis), both averaged across months for each country. With the notable exception of France, respondents tend to be slightly too optimistic.

There is considerable variation of the reported probabilities, both across countries and over time. Moreover, the mean responses are higher in the Mediterranean countries than in the other countries. Participants in Spain, Greece, and Italy report the highest, and those in the Netherlands and in Sweden the lowest subjective probabilities for a sunny day. Overall, the figure shows the expected positive correlation of the reported probabilities and a proxy variable for the actual whether. Additional analyses show that there are no relevant differences across age groups. For all countries and months, the mean probabilities reported by respondents under 60 years of age, between 60 and 74 years, and 75 years and older are 66.6%, 66.3%, and 63.1%, respectively. This is what one would expect if probability assessment were unbiased. In contrast, the analysis of subjective expectations with respect to economically substantial issues that affect individuals differentially according to age presented in the remainder of this contribution shows some meaningful age differences.

Expectations About Future Pension Reforms

Two questions in SHARE 2004 were related to respondents’ expectations about future pension reforms—an issue of obvious relevance, both for public policy and for financial planning and other life-cycle decision at the individual level. Both questions were asked only if the respondent was still working at the time of the interview. The first question asked for the chances that pension entitlements would be reduced and the second for the chances that the retirement age would be raised, both before the respondent’s retirement.

![Figure 2 Chances for a decrease in pensions, by country](image)

*Note: This graph shows, by country, the mean response to the question on how likely it is that “before you retire the government will reduce the pension which you are entitled to.”*
Figure 2 shows the response distributions to the question on a decrease in pensions by country and by age. It may come as a surprise that SHARE participants in two countries that have already seen major pension reforms in the past and are, arguably, less likely to be forced to cut pensions in the future—Austria and Sweden—, report the largest subjective probabilities for future pension cuts, together with those in the Netherlands, a country that did not have major reforms recently but that has a relatively stable pension system. Respondents in Germany are in the middle, but given that pensions will be cut in Germany with near certainty, a mean response of 50 percent seems rather low. The other countries report even lower probabilities. The differences with respect to age in the response to this question are reasonable. Those respondents who are younger than 60 years (for whom there is more time left before retirement) report higher probabilities for future pension cuts. The responses to a second question on subjective probabilities for an increase in retirement age are similar. Again, the Netherlands, Austria, and Sweden report the highest probabilities, followed by Germany. The Swiss appear to be quite certain that their retirement age will not be increased in the future. The age effect is the same as in the previous question.

Subjective Survival Probabilities

For many purposes, it is useful to obtain individuals’ subjective assessment of their mortality risk. In order to construct a complete probability distribution of the uncertain event “time of death”, a sequence of probabilistic questions with different time horizons would be required. Due to space restrictions, SHARE 2004 contained only one such question, worded as follows: “What are the chances that you will live to be age T or more?” The target age, T, contained in this question was chosen conditional on the respondent’s age such that the distance between the current age and the target age varied between 10 and 24 years, see Table 1.

<table>
<thead>
<tr>
<th>Age class of the respondent</th>
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</tr>
</thead>
<tbody>
<tr>
<td>51 to 55</td>
<td>75</td>
</tr>
<tr>
<td>56 to 60</td>
<td>75</td>
</tr>
<tr>
<td>61 to 65</td>
<td>75</td>
</tr>
<tr>
<td>66 to 70</td>
<td>80</td>
</tr>
<tr>
<td>71 to 75</td>
<td>85</td>
</tr>
<tr>
<td>76 to 80</td>
<td>90</td>
</tr>
<tr>
<td>81 to 85</td>
<td>95</td>
</tr>
<tr>
<td>86 to 95</td>
<td>100</td>
</tr>
<tr>
<td>96 to 100</td>
<td>105</td>
</tr>
<tr>
<td>101 to 105</td>
<td>110</td>
</tr>
<tr>
<td>106 and older</td>
<td>120</td>
</tr>
</tbody>
</table>
Figure 3a  Subjective survival probabilities (all countries, males)

Note: These graphs show the mean response to the question on how likely it is that the respondent will live to the target age (see Table 1) and the corresponding population survival probability constructed from life tables; on the horizontal axis is the respondent's age.

Figure 3b  Subjective survival probabilities (all countries, females)

Note: These graphs show the mean response to the question on how likely it is that the respondent will live to the target age (see Table 1) and the corresponding population survival probability constructed from life tables; on the horizontal axis is the respondent's age.

In Figures 3a and 3b we compare, by gender and age, the respondents’ mean subjective survival probability with the corresponding population survival probabilities constructed from life tables. Using data on death rates for the period 1/1990–12/1999 from the Human Mortality Database (online at http://www.mortality.org), we constructed the population counterparts to the subjective survival expectations separately by country and gender. Ex-
Exceptions are Germany, for which we used death rates for 1/1991–12/1999 (combined for East and West Germany), and Greece, for which we used death rates for 1/1980–12/1980 from the Human Life-Table Database (online at http://www.lifetable.de). We restrict the analysis to a maximum age of 85 beyond which cell counts are too small for a meaningful interpretation. The fact that the target ages specified in this question vary with age, as described above, implies that life-table survival rates are not declining monotonically but are increasing within each age class defined in Table 1.

Overall, Figures 3a and 3b suggest that up to about age 60, respondents’ subjective survival probabilities and their life-table counterparts correspond very well for males while females tend to underestimate their survival rates.

The decrease of subjective survival probabilities for later age groups found in the population is also reflected in the subjective probabilities, but there is generally some overstatement relative to life tables, and in many countries the degree of overstatement is larger for males than for females. It is tempting to attribute this discrepancy to overconfidence, but there are also at least two other possible explanations. There could be differences in sample composition even after weighting—for instance, with respect to health. If the health of SHARE respondents were better than that of the population, and if respondents were aware of their relative health status and its impact on survival probabilities, our descriptive findings could be rationalised. Another potential explanation is an increase in life expectancy for older age groups over the past decade that is not yet reflected in the life tables that we used to construct population counterparts to the subjective survival probabilities.

All three explanations will be investigated in future work.

Summary

The analysis of the subjective expectations and hypothetical choice questions in SHARE 2004 indicates that response behaviour is comparable to that observed in other major surveys such as the Health and Retirement Study. Put simply: Subjective expectations questions seem to work. The real test of how well they work is of course to use the responses to predict actual behaviour. This task is high on the agenda for future research that uses these data. Another important issue is to understand how variations in subjective expectations can be explained by other variables. For instance, do stated subjective survival probabilities reflect health status and health risk factors measured in other parts of the SHARE survey?

The descriptive analysis of the response distributions revealed some interesting cross-country differences. The sources of these differences are worthy of further investigation. For instance, does the perceived likelihood of a substantial pension reform (in the form of a decrease in pension entitlements or an increase in retirement age) correctly reflect the current state of the pension reform process in the SHARE countries? The fact that the field period of SHARE spanned several months could be used to test whether major events in the public debate about pension reform had an impact on reform expectations. Taking this research agenda a step further, one could even ask whether such changes have an impact on actual retirement planning (say, on the degree to which households rely on private pension provision).

The full potential of this research will come to fruit once a study like SHARE is extended to a panel that allows to observe the same individuals repeatedly over time. Similarly, one could investigate whether major health shocks, at the individual level, affect not only survival expectations, but also saving and consumption via their impact on expectations.
References


APPENDIX
Tables on Socio-Economic Status

Fig. 6A.1 Lorenz curves on consumption, income and wealth, by country
Note: Continued on next page.
Fig. 6A.1 (cont.) Lorenz curves on consumption, income and wealth, by country
<table>
<thead>
<tr>
<th>Country</th>
<th>N</th>
<th>Gross Income</th>
<th>Net Income</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Basic definition</td>
<td>Corrected for PPP</td>
</tr>
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<td>41193</td>
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</tr>
<tr>
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<td></td>
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<td>(745)</td>
</tr>
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<td>26489</td>
</tr>
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<td></td>
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</tr>
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</tr>
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</tr>
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</tbody>
</table>

Notes: All statistics are population weighted. Standard errors in parentheses.
<table>
<thead>
<tr>
<th>Country</th>
<th>N</th>
<th>Gross Income</th>
<th>Corrected for PPP</th>
<th>Corrected for PPP, equivalent adults + imputed rents</th>
<th>Net Income</th>
<th>Corrected for PPP</th>
<th>Corrected for PPP, equivalent adults + imputed rents</th>
</tr>
</thead>
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**SHARE countries:** 1238 | 18300 | 18315 | 13135 | 16108 | 16225 | 16363 | 11571 | 14674 |

*Notes: All statistics are population weighted.*
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Average Weighted and PPP Corrected Gross Household Income  
and Income Sources, by Country

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### Table 6A.7  Percentage Finding It Difficult to Make Ends Meet (confidence intervals in brackets)

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<th>Single men</th>
<th>Couples</th>
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<td>34.1 [29.1,39.2]</td>
<td>36.4 [28.9,43.9]</td>
<td>21.4 [18.8,23.9]</td>
</tr>
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<td>44.4 [38.4,50.4]</td>
<td>32.7 [23.8,41.6]</td>
<td>26.4 [22.1,30.7]</td>
</tr>
<tr>
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<td>30.0 [22.8,37.2]</td>
<td>17.5 [9.00,26.0]</td>
<td>11.9 [8.18,15.6]</td>
</tr>
<tr>
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<td>38.2 [33.7,42.7]</td>
<td>30.6 [22.9,38.2]</td>
<td>18.8 [15.5,22.2]</td>
</tr>
<tr>
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<td>65.9 [59.1,72.8]</td>
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<td>62.2 [54.5,69.9]</td>
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<td>53.3 [48.3,58.2]</td>
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<td>69.3 [64.6,74.0]</td>
<td>61.1 [52.6,69.5]</td>
<td>72.6 [68.1,77.1]</td>
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### Table 6A.8  Median Values by Income Categories: Northern Countries (PPP euro)

<table>
<thead>
<tr>
<th>Income categories</th>
<th>Age</th>
<th>N</th>
<th>Income</th>
<th>Consumption</th>
<th>Wealth</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Low Income</strong></td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>(5-25 percentiles)</td>
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<td>46,416</td>
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<tr>
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<td>49,844</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(40-60 percentiles)</td>
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### Table 6A.9  Median Values by Income Categories: Central Countries (PPP euro)

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<th>Wealth</th>
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<td><strong>Low Income</strong></td>
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### Table 6A.10  Median Values by Income Categories: Southern Countries (PPP euro)

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