6.4 Consumption
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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-
sions, 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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<th>Country</th>
<th>CH</th>
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<th>SE</th>
<th>IT</th>
<th>FR</th>
<th>AT</th>
<th>DE</th>
<th>NL</th>
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<td>112</td>
<td>103</td>
<td>102</td>
<td>98</td>
<td>96</td>
<td>94</td>
<td>82</td>
<td>75</td>
</tr>
</tbody>
</table>
Figure 2 shows the distribution of food consumption defined as the expenditure on food at home divided by the price level index.

![Figure 2: The distribution of (weighted) per capita monthly food at home consumption across countries](image)

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.

![Figure 3](image)

*Figure 3* Distribution of household food at home consumption across household types

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](image)

**Figure 4** Percentage of households finding it difficult to make ends meet across countries and household types

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**
