AGEING WORKING PAPERS

Maintaining Prosperity In An Ageing Society: the OECD study on the policy implications of ageing

ADEQUACY AND POVERTY AMONG THE RETIRED

WORKING PAPER AWP 3.2

This is one of a series of analytic papers that supported the OECD's ageing study, a "horizontal"project in the sense that it involved a number of OECD directorates . The results of the entire project are summarised in *Maintaining Prosperity in an Ageing Society* , OECD 1998. Chapter V of *Maintaining Prosperity—*on retirement income reforms—drew on this working paper, as well as on complementary conclusions drawn from other work which is described in AWP 4.3.

The paper compares the income situation of retirees in 14 OECD countries from the perpective of adequacy, well-being and poverty. The differences found cannot be directly linked to social protection systems taken in isolation. Many factors in addition to public pensions are at play. Indeed, in one of the countries where retirement income is most adequate, public pension replacement rates are relatively low.

The authour is Richard Hauser, University of Frankfurt. It was commissioned by the International Social Security Association and presented at a joint ILO-OECD workshop on the development and reform of pension schemes, held in Paris, 15 -17 December 1997. The ILO is holding workshops on in various centres around the world and plans to publish associated papers. For any enquiries, please contact Dominique Blanvillain (ILO) at: tel: (41) 22 799 66 34, fax: (41) 22 799 79 62, e-mail: blanvillain@ilo.org.

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ADEQUACY AND POVERTY AMONG THE RETIRED

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1.   Introduction

1.   Problems of the systems for protecting the elderly have become pressing on a world wide scale albeit for different reasons[1]. In many industrialised countries with mature systems the share of GDP that is redistributed via the mandatory pension system is criticised as being to high. High unemployment rates, actual GDP far below potential GDP, reduced revenue from taxes and social security contributions account for many of the present problems. But in the long run the growing share of the elderly population will pose the main problem even if the unemployment rate can be reduced to an acceptable level. In industrialised countries with rather young mandatory pension systems the maturing of the systems will cause additional financial problems. Countries in transition have to change their systems fundamentally to cope with the greater need for protection in a market oriented economy. Developing countries that introduce new systems for the protection of the elderly have to find a compromise between the immediate payment of benefits to the presently elderly based on the pay-as-you-go principle, and the accumulation of funds for the future elderly generation. Obviously, a comparative study of the existing mandatory pension systems and of their effectiveness in avoiding poverty among the elderly and of guaranteeing an adequate living standard in old age can provide guidance as to the best ways of reforming existing systems and of introducing new systems.

2.   To compare the various old age protection systems often a so-called institution-by-institution approach is used[2]. With such an approach the main characteristics of the mandatory pension systems, like coverage, pension formula, indexing rules, minimum income regulations, retirement age, preconditions for receiving pensions etc. are compared[3]. As a second step one can compare the income level based on a "standard pension" with average net income of those at working age, and one can calculate replacement rates for model cases distinguished by income level, contribution record or length of residence period[4]. Such an institutional approach is a necessary prerequisite for further analysis but it may be misleading if one wants to draw conclusions about the well-being of the elderly or about poverty among them. The main reasons are:

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[1]   OECD (1988), World Bank (1994)

[2]   For a description of different approaches and of their problems compare Hauser (1992)

[3]   A good example is Zacher (1991). For an overview of the institutional arrangements of the social protection systems of the member states of the European Union see MISSOC (1995)

[4]   Examples are Casmir (1989), Stapf (1996), Hauser (1995), Klammer (1997), Ahrens (1996), Nitis (1996), Pöhler (1997), Eurostat (1993)

1. If the mandatory pension system does not cover all elderly residents it remains an open question whether the elderly not covered are protected by other means.

2. If the pension system provides pensions that in some way are related to previous income and/or the length of the contribution or residence period the distribution of pensions and the percentage of those with pensions too low to avoid poverty cannot be derived.

3. Pension reforms often change only the conditions for persons still at working age or new pensioners to the better or to the worse thus leaving older pensioners unaffected. Therefore, pensions of the various cohorts of pensioners may depend on different institutional regulations that cannot be easily disentangled by an institutional analysis.

4. Pensioners may receive other kinds of income besides the pensions of the mandatory pension system. In this case it would be misleading to draw conclusions about the well-being of pensioners from replacement rates calculated for certain types of pensioners.

5. If pensions are calculated on the basis of the individual contribution record without any consideration of the family size of the recipient and of other incomes of family members one cannot draw conclusions about their actual well-being.

3.   A necessary supplement to the institution-by-institution approach, therefore, is an empirical group-by-group approach. With this approach groups of the elderly in each country under review can be compared with respect to their average well-being, their poverty rates, differences between male and female pensioners and between age cohorts of pensioners. Such a group-by-group approach can be purely descriptive, or it can be more ambitious, geared to explaining differences among countries. Given the many factors that usually influence the well-being of the elderly in comparison to the non-elderly explanations, however, cannot go very far.

4.   In this paper we use the group-by-group approach. We present, however, only a description of differences in the well-being of the elderly among countries without aiming at explanations. To arrive at a more comprehensive picture with at least some explanatory power a detailed comparison of the social protection systems of all of the countries under review, and of their demographic structures would be necessary.

5.   Members of a society compare themselves with other members of the same society among whom they have to live, and not with members of other societies. It is assumed, therefore, that in highly industrialised countries like the countries under review well-being and poverty are relative phenomena. This approach implies that an elderly person classified as poor in a rich country may be better off in real terms than a person classified as non-poor in a less rich country. Consequently, we will use the group-by-group approach in its purely relative form. This means that in each country the elderly are first compared to the non-elderly, and then these ratios are compared among countries. In the same way poverty lines and other benchmarks are defined in relation to country averages.

6.   The paper is organised as follows: Section 2 briefly describes data and methods. Section 3 gives an overview of the population share that in each of the fourteen countries under review is living in pensioner and non-pensioner households. Section 4 deals with the composition of the incomes of pensioner households. Section 5 presents some results as to the average well-being of persons living in pensioner households in relation to persons in non-pensioner households. Additionally, differences between men and women, between age cohorts, and between singles and couples are shown. Section 6 looks at the distribution of income among pensioners, and section 7 deals with low income and poverty

among the elderly using three different poverty lines and two different equivalence scales. Section 8 summarises the results.

2.   Data and methods

7.   This study compares the well-being of the elderly in twelve member states of the European Union, and in the two North American states. The countries under review are: Belgium, Denmark, Germany (West), Spain, France, Greece, Ireland, Italy, Luxembourg, Netherlands, Portugal, United Kingdom, Canada, and the United States. Most of the data used have been collected by the Luxembourg Income Study Project (LIS Project)[5]. The exceptions are data for Portugal and Greece that were provided by members of the ASEG Project[6]. The LIS Project improves data comparability with respect to the household definition and the income variables as far as possible. The ASEG data were adjusted according to the LIS rules although some (unknown) differences may remain. The available data refer to years around 1990. One cannot, therefore, exclude the possibility that recent pensions reforms in some countries have changed the relative position of elderly.

8.   In this study we usually count persons who are living in pensioner or non-pensioner households. The reason for counting persons and not households is the value judgement that - from an ethical viewpoint - the well-being of each person is of equal importance, be it a child, a middle-aged person or an elderly pensioner. If we counted households instead of individuals this would implicitly give persons living in larger households smaller weights than single living persons. A pensioner household is defined as a household whose head is 55 years or older, and at least one member of which receives a pension. We have chosen a rather low retirement age to account for the fact that in some countries early retirement is quite common. To simplify the presentation persons living in pensioner households are called „pensioners" or „elderly" irrespective of their own age and irrespective of whether they themselves receive any pension income.

9.   The well-being of persons is measured by their net equivalent income. Net equivalent income of a person is derived by dividing the net income of the household he or she is living in through the sum of the equivalent weights of all members of this household. This well-known procedure[7] is based on the following assumptions:

1.   The incomes of all household members are pooled.

2.   Compared to single living persons there are economies to scale in consumption if persons live together in a household.

3.   The distribution of income and consumption among the household members is such that each member reaches the same level of well-being.

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[5]   The calculations with LIS data were done by Frank Tibitanzl. Additional results can be found in Hauser, Tibitanzl, Mörsdorf (1997). The data of the LIS and its shortcommings are described in Atkinson et al. 1995, Ch. 3. For an overview of LIS and suggestions for improvements see Smeeding (1996)

[6]   The ASEG Project (Alterssicherung in der Europäischen Gemeinschaft) is directed by myself and Diether Döring. Its aim is a comparison of the old age protection systems of twelve EU countries. It is financed by the Volkswagen-Stiftung, the Hans-Böckler-Stiftung and the Friedrich-Ebert-Stiftung. The calculations for Greece were done by Sotirios Nitis in collaboration with Prof. Tsakloglou.and for Portugal by Ulrike Ahrens in collaboration with Carlos Farinha Rodrigues. For details see Ahrens (1996) and Nitis (1996).

[7]   Compare Atkinson et al. (1995) ch. 2.

10.   We use two different equivalence scales to account for the fact that the institutional arrangements in the various countries imply different equivalent scales, and to show the sensitivity of the results with respect to the choice of a scale[8]. The first equivalence scale used is known as the „old" OECD scale that assigns a weight of 1.0 to the head of household, weights of 0.7 to additional members 14 years and older, and weights of 0.5 to younger children. The second scale is called the „new" OECD scale with weights of 1.0, 0.5 and 0.3 respectively. The mean net equivalent income is calculated by dividing the sum of the equivalent incomes of persons by the number of persons. Poverty lines are calculated as 40 percent, 50 percent, and 60 percent of mean equivalent income.

3.   Composition of populations

11.   Since we base our analysis mainly on comparisons of net equivalent income the household types the elderly are living in are very important. If on the one hand all elderly persons lived single only their own income would matter, and only elderly persons who are 55 years or older *and* who actually receive a pension would form the group under consideration. If on the other hand all elderly persons lived in three-generation households the incomes of all household members would matter and - given our definition of a pensioner household - the group of persons living in pensioner households could comprise elderly persons, middle aged persons, and even children.

12.   The first step of our analysis, therefore, is to get some basic information about the household structure in each country under review. Table 1 shows to what extent persons are living in pensioner and non-pensioner households. Additionally, one can gather from Table 1 to what extent persons live in single pensioner households, in pensioner households of couples without children in the household, and in other households that to a certain extent are three-generation households. For each country the year of reference of the data is given in brackets.

(Table 1)

13.   Column 5 shows that the population share of persons living in pensioner households varies from 15.8 percent to 29.1 percent[9]. Countries with shares below 20 percent are Canada, Ireland, the Netherlands, and the United States. Shares of more than 25 percent are found in Greece, Germany (West), Spain, Italy, and Portugal. These high shares may depend on a high population share of the elderly, a high share of three-generation families, a very high coverage of the population by mandatory pension systems, a low retirement age, and a high number of disablement pensions for persons over 55 that in our data cannot be distinguished from old age pensions. The percentages of single living male pensioners (col. 1) ranges from 0.4 percent (Spain) to 2.4 percent (Denmark). Single living female pensioners (col. 2) make up between 1.7 percent (Spain) and 6.3 (Denmark) of the population. Couples (col. 3) comprise between 6.2 percent (Canada) and 11.6 percent of the population. The shares of persons living in other types of pensioner households (col. 4) also vary considerably. Countries which are known for larger families show the highest percentages: Spain (16.6 percent), Ireland (13.0 percent), Italy (12.7 percent), and Portugal (16.3 percent). Very small shares can be found in Denmark and in the Netherlands. Presumably, the fact that these

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[8]   For an analysis of the sensitivity of results on income distribution with respect to the equivalence scale used see Buhmann et al. (1988)

[9]   Greece is not strictly comparable because the age limit for a pensioner household was set at was set at 42 years and only households with main income from pensions were included. Therefore it is excluded in the following comparisons of population shares.

countries provide basic pensions at an adequate level to almost all their elderly thus avoiding economic pressure to live in two-generation or three generation households contributes to this household structure.

4.   The composition of the income of pensioner households

14.   One of the reasons why an institution-by-institution approach cannot lead to reliable results about the relative well-being of pensioners is the possibility that pensioner households receive additional income from sources other than the mandatory old age security systems. One can gather from Table 2 to what extent this is the case.

(Table 2)

15.   Although there may be data problems, especially with respect to fully accounting for income from capital and self-employment, it can be seen that in each country a considerable share of pensioner households also receives additional income from other sources. Wages and salaries are quite common among pensioner households. In twelve countries a small group also derives income from self-employment, and in ten countries another small group also receives unemployment benefits. Presumably, the groups which receive income from wages, self-employment or unemployment benefits would have been much smaller had we based our definition of a pensioner household on an age limit of 65 years. Without going into details one can also see that in each country smaller or larger groups of pensioner households additionally receive income from capital and other transfers, but some of the figures seem to be too low.

16.   The percentages of pensioner households which receive income from sources other than pensions indicate whether these incomes are concentrated on small groups or whether they are widely spread, but they cannot tell us much about the importance of these other sources for total net household income of the pensioners. By calculating the shares of all kinds of income in total net household income of *all* pensioner households one can show the importance of pension payments for the well-being of the elderly on average although the composition of net household income of each pensioner household may diverge from this average. Table 3 presents results about the shares of the different income sources in total net household income of pensioner households.

(Table 3)

17.   Looking at the shares of pension income (col. 4) one can distinguish three groups of countries. A first group with a share of more than 80 percent includes Belgium, Germany (West), France, Luxembourg, and the Netherlands. A second group with shares between 60 percent and 80 percent comprises Denmark, Spain, the United Kingdom, Canada and the United States, and presumably Ireland[10]. In Greece, Italy, and Portugal pension income contributes less than 60 percent to total income of pensioner households. In most countries income from wages and salaries is second in importance, and income from capital is third.

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[10]   In the Irish case contributory pensions are classified as "pensions" while non-Contributory pensions are classified as "other transfers". Since non-contributory pensions also protect the elderly both types should be seen in combination.

Income from self-employment seems to be of considerable importance only in Greece, Spain, Ireland, and Portugal[11].

18.	Summarising the results of this section one can say that there are considerable differences in the importance of pensions from the mandatory pensions systems for the well-being of the elderly ranging from less than 50 percent to more than 80 percent of total net household income. Earnings supplement the income of pensioner households to a considerable extent. In most countries income from capital plays only a minor role.

**5.	Relative well-being of pensioner households**

19.	As a first step to get information about the well-being of pensioners in comparison with non-pensioners we look at the ratio of their mean net equivalent incomes. Table 4 (col. 4) shows that this ratio ranges from 72.2 percent to 100.7 percent if the old OECD equivalence scale is used for the calculations.

(Table 4)

20.	Countries with very high ratios of over 95 percent are Spain, France, Luxembourg, the Netherlands, Canada and the United States. In these countries pensioners can be said to enjoy on average about the same living standard as non-pensioners. The group of countries in which the well-being of pensioners on average is far below the well-being of non-pensioners (ratios under 85 percent) includes Denmark, Italy, Portugal, and the United Kingdom. The middle group with a somewhat lower average well-being of pensioners than non-pensioners comprises Belgium, Germany (West), Greece, and Ireland.

21.	These results that point to a rather favourable position of pensioners in the majority of countries are sensitive to the equivalence scale used. If the weights for further members of a household are smaller than those given by the old OECD scale this has the effect that total mean net equivalent income as well as the group-specific means are higher. The increase in the group-specific mean, however, is the higher the larger the average household size within this group. Since non-pensioner households on average are larger than pensioner households the group-specific mean of non-pensioners increases by more than the group-specific mean of pensioners thus reducing the ratio between these two means.

22.	Since the new OECD equivalence scale assigns smaller weights to further members of a household than the old OECD scale it can be expected that the ratios between pensioners and non-pensioners are lower if this scale is used. Table 4 (col. 8) shows that this effect is quite large. It amounts to between 6 and 9 percentage points depending on the differences in average household size. By using the new OECD scale the relative well-being of persons living in pensioner households looks much less favourable. Presumably, Portugal for which this calculation was not possible would be below 70 percent, while the other members of the low ratio group drop below 75 percent. In the top group the relative well-being of pensioners is in this case on average only slightly over 90 percent of that of non-pensioners.

23.	It is an open question which equivalence scale is closer to the "true" scale. It may even be the case that the scale to be used should be different for different countries since it depends heavily on differences in rent for apartments of different size, and on other differences in relative prices and in

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[11]	It seems plausible that the extremely high share of income from "other sources" in Portugal results from a wrong classification of income from self-employment. The high share of income from self-employment in Greece has to be seen in connection with the low age limit on which the calculations were based.

consumption behaviour. From the German viewpoint I would prefer the old OECD scale since this scale is much closer to the scale implied in the German institutions, e.g. the ratio of a survivor pension to the original pension of a deceased pensioner.

24.   It can also be gathered from Table 4 (col. 1 - 3) that in general the ratios between average net equivalent income of pensioners and non-pensioners diminish with increasing age of the head of the pensioner household. This is the case in all the countries when we compare persons living in an pensioner household with an elderly head between 65 and 74 years to persons in a household with an older head. Only in Luxembourg the ratios are almost equal. By comparing the youngest pensioner group to the second youngest one several exceptions from the general tendency of a reduction ot the ratios with increasing age can be found, namely Germany, Spain, France, Ireland, the Netherlands, and the United States.

25.   It is tempting to interpret the difference in the relative well-being between the middle cohort and the oldest cohort of pensioners in a longitudinal perspective as being caused by differences in the indexing rules of the various countries. Although there are differences in these indexing rules[12] many other differences between cohorts exist that can influence these ratios, among others differences in additional income , differences in their life courses, differences in coverage by the mandatory pension systems, and even in the pension rules that at the time of retirement were applicable. A much more detailed and country-specific analysis would be necessary to disentangle the various factors that cause these differences between cohorts. But it is interesting to note that these differences can also be found when the new OECD scale is used (Table 4, col. 6 and 7).

26.   In many countries the traditional mandatory pension systems are based on the model of a male one-earner family with children, and, consequently, provide survivor pensions for widows and orphans derived from the pension of the male earner in case of his death. In view of the demographic and societal changes mandatory pension systems based on this model become more and more problematic. Women demand pensions as of their own right that should also compensate for differences in the life course and in working life between men and women. In this paper it is not possible to distinguish between derived pensions and own pensions of women[13], but we can check whether single living female and male pensioners are better or worse off compared to pensioner couples. From Table 5 that is calculated by using the old OECD scale the following conclusions can be drawn:

(Table 5)

27.   With the exception of Ireland male single living pensioners are better off than female single pensioners when both groups are compared to the respective pensioner couples (Table 5 col. 4 and 8). The discrepancies amount to more than 25 percentage points in Belgium, Luxembourg, Portugal, and to between 20 and 25 percentage points in Germany (West), Spain, France, and in the Netherlands. In most countries female single pensioners are worse off than pensioner couples while male single pensioners are better off. When one compares the middle cohort and the oldest cohort of single female or male pensioners one cannot see a clear pattern as it was found for *all* pensioners. In some cases the younger group is relatively better off than couples, in others it is the oldest group. Obviously, many factors interact and lead to differing results in the various countries.

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[12]   Conmpare MISSOC

[13]   Some results can be found in Döring et al. (1994) and (1996)

6.   The distribution of well-being among pensioners

28.   In many countries the aim of the mandatory pension system is not only to guarantee an adequate living standard for the elderly on average but also to reduce inequality and to avoid poverty in old age. These aims may be of different importance in the countries under review. But it is obvious that a comparison of the average well-being of pensioners and non-pensioners does not suffice to evaluate the functioning of the mandatory pension systems and of other provisions for the elderly with respect to these aims. An analysis of the distribution of members of pensioner households across income brackets has to supplement the comparison of group-specific averages. In Table 6 persons living in pensioner households are classified according to four net equivalent income brackets the limits of which are defined as percentages of the country-specific overall mean net equivalent income.

(Table 6)

29.   The middle group of pensioners whose net equivalent income is between 75 percent and 150 percent of the overall mean (old OECD scale) comprises between 33 percent (United Kingdom) and almost 60 percent (Belgium) of the pensioners of each country. It seems fair to say that this group enjoys an adequate living standard in old age. If the new OECD scale is used pensioners generally move downwards. In this case everywhere the middle group is a little smaller.

30.   The size of the top group whose net equivalent income exceeds 150 percent of the overall mean ranges from 3.9 percent (Denmark) to 16 percent (United States) or from 3.1 percent to 14.2 percent respectively. These groups of pensioners can live very comfortably in old age.

31.   One can add the shares of the lowest and the highest group to get a simple indicator of the inequality among pensioners. In this way one can distinguish three groups of countries: Countries with combined shares under 20 percent (Belgium, Denmark, Germany (West), Ireland, Luxembourg, Netherlands, and Canada), countries with shares between 20 percent and 30 percent (Spain, France, and Italy), and, finally, countries with shares over 30 percent (Greece, Portugal, the United Kingdom, and the United States). If the new OECD scale is used inequality seems to be greater in most countries but the ranking of the countries does not change. The group with lowest inequality again comprises Belgium, Denmark, Germany (West), Ireland, Luxembourg, the Netherlands, and Canada. The highest inequality is found in Greece, Portugal, the United Kingdom and the United States. A closer look at the low income groups will reveal more details.

7.   Low income and poverty among pensioners

32.   Table 7 shows the relative size of those groups of pensioners whose net equivalent income is alternatively below 40 percent, 50 percent or 60 percent of the overall mean net equivalent income. The results are given for the old and the new OECD equivalence scale.

(Table 7)

33.   One can assume that these groups are living in severe, medium and mild poverty respectively, or one can say that they are living below three different levels of low income. To call these groups "poor" obviously implies a value judgement that is not universally accepted but has become a convention among social scientists.

34.   Poverty among pensioners at the 40 percent poverty line (old OECD scale) is less than 3 percent in Denmark, Luxembourg, the Netherlands, and Canada. Poverty ratios among pensioners are a little higher if the new OECD scale is used but the same countries show the lowest rates. At the 40 percent poverty line (old OECD scale) poverty ratios of more than 10 percent can be found in Greece, Portugal and the United States.

35.   If one moves to the 50 percent poverty line (old OECD scale) the ranking of the countries with respect to their poverty ratios does not change much. The Netherlands, Denmark, Belgium, Canada and Luxembourg show the lowest rates. Greece, Portugal, the United Kingdom and the United States are the countries with highest rates. Almost the same ranking can be found if the new OECD scale is used.

36.   At the 60 percent poverty line (old OECD scale) the ranking of countries changes to some extent. This change points to the possibility that in some countries minimum pensions or some other minimum benefit regulations exist that provide benefits between 50 percent and 60 percent of mean net equivalent income. The five countries with lowest poverty ratios are now the Netherlands, Canada, Belgium, Luxembourg, and Germany. The three countries with highest poverty ratios are the United Kingdom, Portugal, Italy, but Greece and the United States are also very close to the group with highest poverty rates. If the new OECD scale is used the ranking is somewhat different: Luxembourg, Belgium, Germany (West), and Canada still show the lowest poverty ratios while the Netherlands and Denmark move to the groups with medium or even high ratios. The United Kingdom, the United States and Denmark display the highest ratios

37.   Concentrating the analysis on the 50 percent poverty line and using the old OECD scale we can check for differences in the poverty ratios of pensioners living in different household types or in households with a head whose age is between 55 and 64, 65 and 74 or 75 and more. Table 8 shows the results.

(Table 8)

38.   Poverty ratios of single female pensioners are much higher than male ratios in Germany, Spain, the United Kingdom and the United States, and in most other countries they are somewhat higher. The exceptions are Denmark, and Canada. By comparing poverty ratios of couples to ratios of other household types one cannot find a clear pattern.

39.   Looking at poverty ratios of cohorts of pensioner households one finds an increase from the 65-74 cohort to the oldest cohort in most countries. The exceptions are Ireland, Italy, Luxembourg, and Canada.

8.   Summary and concluding remarks

40.   A summary of the many aspects of the well-being of the elderly in the fourteen countries compared is to some extent influenced by the personal judgements of the reviewer. With this caveat we select five indicators for this summary that correspond to the aims of the social protection systems for the elderly:

> 1.   The share of pension income in total net income of pensioner households. These shares indicate the importance of the mandatory pension systems for the protection of the elderly. It is not clear, however, whether higher share are to be preferred to lower shares. Higher shares

can only be seen as positive if they result in a higher relative well-being of pensioners, and also in less poverty.

2. The ratio of net equivalent income of pensioners to non-pensioners. From the viewpoint of the well-being of pensioners higher rates are to be preferred.

3. The ratio of well-being between single living female and male pensioners. The smaller the difference in percentage points the more preferable is this ratio.

4. The combined population shares of the bottom and the top group of pensioners that indicate inequality among pensioners. Smaller shares are to be preferred to higher ones.

5. The poverty ratio at the 50 percent poverty line based on the old OECD scale. The smaller the poverty ratio the better the protection system is doing to avoid poverty in old age.

41.   We consider these indicators according to their preferred values only within ranges that are termed "high", "medium" and "low" as specified in Table 9. The qualification "high" means that the whole social protection system for the elderly in a country is in the top bracket with respect to this indicator, and vice versa.

(Table 9)

42.   Looking at Table 9 the differences between the old age protection systems of the countries under review with respect to their effectiveness show up clearly.

43.   The old age protection systems of a top group of countries succeed in providing a high level of well-being for pensioners and in reducing inequality and poverty among pensioners to a low level. This group consists of Canada and the Netherlands. Canada attains these aims with a smaller share of pension money in total net household income of pensioner households. Moreover, it keeps the discrepancies between single female and male pensioners on a smaller scale.

44.   A second group of countries manages to attain a high level of well-being for its pensioners, but with respect to the reduction of inequality and poverty they are only somewhere in the middle. Furthermore, they are only partly successful in avoiding large discrepancies between single female and male pensioners. Spain, France, and Luxembourg belong to this group.

45.   The United States constitute a group of its own. Their old age protection system also provides a high level of well-being for its pensioners with a medium share of pension money but it fails with respect to inequality and poverty in old age. On the other hand discrepancies between single female and male pensioners on average are kept small.

46.   The counter-example is Denmark. With a medium share of pension money it provides only a low level of well-being for its pensioners but it reduces inequality, poverty and discrepancies between single female and male pensioners to very low levels.

47.   The members of another group of European countries provide only medium levels of well-being for their pensioners but they reduce inequality and poverty to medium or low levels. Only in one country discrepancies between single female and male pensioners are small. Belgium, Germany, and Ireland belong to this group.

48.   Greece, Italy, the United Kingdom, and Portugal are in the last group with only medium (Greece) or low average levels of well-being for its pensioners and, additionally, medium (Italy) or high inequality and also high poverty. The share of pension money is only medium (UK) or low, but with the exception of Portugal the discrepancies between single female and male pensioners are kept small.

49.   A conclusion that these considerable differences between the countries under review are solely caused by differences in their social protection systems would not be justified by this analysis. These differences can be due to many factors that cannot easily be disentangled. In addition to the type of social protection system for the elderly and the maturity of the various systems, the demographic structure of the population, the share of Gross Domestic Product that is assigned to the protection of the elderly, and previous accumulation of private wealth also play its role. Given the high complexity of all the social protection systems for the elderly only a combination of the institution-by-institution approach and the group-by-group approach can produce reliable results. Even with such a study it would remain an open question whether a given social protection system should be judged by using common criteria laid down in international conventions or in relation to the prevailing values of a country itself.

REFERENCES

Ahrens, Ulrike (1996), Alterssicherung in Portugal - eine institutionelle und empirische Analyse, Dissertation, Frankfurt a. M. (unveröff.)

Atkinson, Anthony, B.; Rainwater, Lee; Smeeding, Timothy, M. (1995), Income Distribution in OECD Countries, Evidence from the Luxembourg Income Study, OECD Social Policy Studies No. 18, Paris

Buhmann, B., Rainwater, L., Schmaus, G., Smeeding, T. (1988), Equivalence Scales, well-being, inequality and poverty: sensitivity estimates across ten countries using the Luxembourg Income Study (LIS) database, in: Review of Income and Wealth, Vol. 34, pp. 115-142

Burkhauser, Richard, V.; Duncan, Greg; Hauser, Richard (1994), Sharing Prosperity Across the Age Distribution: A Comparison of the United States and Germany in the 1980s, in: The Gerontologist, vol. 34, no. 2, pp. 150-160

Casmir, Bernd (1989), Staatliche Rentenversicherungssysteme im internationalen Vergleich. Eine Studie über die Systeme in Großbritannien, den Niederlanden, der Schweiz, den Vereinigten Staaten von Amerika, Österreich und der Bundesrepublik Deutschland, Frankfurt am Main, Bern, New York, Paris

Comité Européen des Assurances (1995), Altersversorgung in Europa 1995, Paris

Döring, Diether; Hauser, Richard; Rolf-Engel, Gabriele; Tibitanzl, Frank (1994), Old-age Security of Women in the Twelve EC Countries - To What Extent Are Beveridge's Two Main Principles of Universality and Guaranteed Minimum Income Fulfilled?, in: Journal of European Social Policy, pp. 1-18

Döring, Diether; Hauser, Richard; Rolf-Engel, Gabriele; Tibitanzl, Frank (1996), L'Assurance vieillesse des femmes dans l'Europe de Douze, in: Retraite et Société, no. 13, pp. 135-157

Eurostat (ed.) (1993), Old Age Replacement Ratios, Vol. I, Relation Between Pensions and Income from Employment at the Moment of Retirement, Brussels

Hauser, Richard (1992), Problems of Comparative Social Policy Analysis. The Case of Pension Systems and Income Security for the Elderly, in: D: J. Slottje, T. M. Smeeding (eds.), Research on Economic Inequality, vol. 3, London et al., pp. 57-79

Hauser, Richard (1995), Stand und Entwicklungstendenzen der Annäherung der sozialen Sicherung in der Europäischen Union: Das Beispiel Alterssicherung, in: W. Schmähl, H. Rische (Hrsg.), Internationalisierung von Wirtschaft und Politik - Handlungsspielräume der nationalen Sozialpolitik, Baden-Baden, S. 139-172

Hauser, Richard (1997), The Main Problems of International Comparative Poverty Research, in: N. Ott, G. Wagner (eds.), Income Inequality and Poverty in Eastern and Western Europe, Heidelberg, pp. 31-52

Hauser, Richard; Mörsdof, Konstanze; Tibitanzl, Frank (1997), Documentation no. 4, ASEG Project, Professur für Sozialpolitik, Fachbereich Wirtschaftswissenschaften, Goethe-Universität, Frankfurt am Main (vervielf.)

Klammer, Ute (1997), Alterssicherung in Italien, Eine institutionelle, theoretische und empirische Analyse, in: Sozialpolitische Schriften H. 70/II, D. Döring, R. Hauser, (Hrsg.), Alterssicherung in der Europäischen Union II, Berlin

Kommission der Europäischen Gemeinschaften (1996), MISSOC, Soziale Sicherheit in den Mitgliedsstaaten der Union, Luxemburg

Nitis, Sotirios (1996), Alterssicherung in Griechenland, Eine institutionelle, empirische und sozio-ökonomische Analyse, Dissertation, Frankfurt a. M. (unveröff.)

Pöhler, Kay (1997), Alterssicherung in den Niederlanden, Eine institutionelle und empirische Analyse, Dissertation, Frankfurt a. M. (unveröff.)

OECD (1988), Reforming Public Pensions, Paris

Smeeding, Timothy, M. (1996), Cross-National Comparisons of Income Distribution: The Income Distribution Needs of Microdata Users as seen from the Perspective of the Luxembourg Income Study, LIS Working Paper No. 151, Luxembourg

Stapf, Heinz (1996), Alterssicherung in Spanien, Eine institutionelle, theoretische und empirische Analyse, in: Sozialpolitische Schriften, H. 70/I, D: Döring, R. Hauser (Hrsg.), Alterssicherung in der Europäischen Union I, Berlin

World Bank (1994), Averting the Old Age Crisis, Policies to Protect the Old and Promote Growth, Oxford

Zacher, Hans (Hrsg.) (1991), Alterssicherung im Rechtsvergleich, Baden-Baden

Table 1: **Percentages of persons living in pensioner and non-pensioner households**

- percent -

Country (Year of Reference)	Persons in pensioner households					Persons in non-pensioner households				
	single male	single female	couple without children	other	All	single male	single female	couple without children	other	All
EU-States										
Belgium (1992)	1.0	3.4	11.0	8.3	23.7	1.7	1.6	9.9	63.1	76.3
Denmark (1992)	2.4	6.3	11.1	1.5	21.3	7.9	5.3	14.6	51.0	78.8
Germany (W) (1989)	1.3	7.4	11.5	5.8	26.0	5.6	3.8	11.6	53.0	74.0
Spain (1990)	0.4	1.7	6.5	16.6	25.2	0.4	0.4	3.5	70.5	74.8
France (1989)	1.2	4.4	9.8	6.8	22.2	2.5	2.3	9.4	63.6	77.8
Greece[1] (1987/88)	1.4	8.2	11.6	9.3	30.5	2.8	4.8	34.7*	27.3*	69.6
Ireland (1987)	1.0	1.9	3.0	13.0	18.9	1.0	0.7	3.5	75.9	81.1
Italy (1989)	1.1	4.2	7.8	12.7	25.8	1.5	0.9	5.2	66.6	74.2
Luxembourg (1985)	1.0	3.9	8.3	8.9	22.1	1.8	1.7	9.7	64.8	78.0
Netherlands (1991)	1.2	4.6	9.6	2.5	17.9	3.8	3.3	14.9	60.1	82.1
Portugal (1989/90)	0.6	2.3	9.9	16.3	29.1	0.3	0.6	5.0	65.1	71.0
United Kingdom (1991)	1.4	5.1	10.2	6.2	22.9	3.0	1.8	13.6	58.8	77.2
North America										
Canada (1991)	1.0	2.7	6.2	5.9	15.8	4.6	3.6	9.4	66.5	84.2
United States (1991)	0.8	3.0	6.8	6.0	16.6	4.1	3.4	10.2	65.7	83.4

[1]   Including pensioner households with head of household 42 - 54 years <u>and</u> main income from pensions.
*   Presumably „couples" includes couples with children.
<u>Source</u>:   Hauser, R. Mörsdorf, K., Tibitanzl, F. (1997), Documentation no. 4, ASEG,Project. Professur für Sozial politik, Fachbereich Wirtschaftswissenschaften, Goethe Universität Frankfurt a.M., calculated by F. Tibitanzl form data supplied by the LIS project Luxembourg, U. Ahrens (Portugal), S. Nitis and P. Tsakloglou (Greece).

Table 2: **Percentages of pensioner households receiving different kinds of income**

- percent -

Country (Year of Reference)	income from						
	Wages salaries	self-em-ployment	interest profits	pensions	unem-ployment benefits	other transfers	other sources
EU-States Belgium (1992)	18.2	0	11.6	100.0	5.6	6.6	1.3
Denmark (1992)	21.3	7.3	94.5	100.0	4.9	52.0	12.2
Germany (W) (1989)	17.2	1.9	83.6	100.0	2.0	7.8	1.3
Spain (1990)	28.2	9.0	20.1	100.0	5.5	7.9	5.5
France (1989)	15.0	6.1	25.9	100.0	4.3	15.5	4.1
Greece[1] (1987/88)	20.1	91.1	88.1[2]	100.0	-	4.5	9.5
Ireland (1987)	28.0	15.6	49.4	54.4[3]	6.8	63.9[4]	0.4
Italy (1989)	16.9	3.8	95.0	100.0	-	47.1	2.1
Luxembourg (1985)	17.1	3.4	12.9	100.0	0.2	12.9	2.8
Netherlands (1991)	10.5	1.5	56.0	100.0	1.6	30.6	6.6
Portugal (1989/90)	56.2	-	21.5	100.0	-	13.1	90.5
United Kingdom (1991)	18.8	3.3	77.4	100.0	0.8	46.3	7.3
North America Canada (1991)	27.0	6.5	65.6	100.0	8.7	88.8	8.4
United States (1991)	30.9	4.7	69.5	100.0	3.0	19.1	1.7

[1]   Including pensioner households with head of household 42 - 54 years <u>and</u> main income from pensions.
[2]   Including rental value of owner occupied houses.
[3]   Recipients of non-contributory pensions were also classified as pensioners.
[4]   Includes non-contributory old age pensions.

<u>Source</u>:   See Table 1

Table 3: **Shares of various kinds of income in total gross household income of all pensioner households**
- percent -

Country (Year of Reference)	income from							
	Wages salaries	self-employment	interest profits	pensions	unemployment benefits	other transfers	other sources	Total[1]
EU-States Belgium (1992)	10.8	-	0.4	86.1	1.7	0.8	0.1	100.0
Denmark (1992)	7.9	1.8	8.2	74.9	0.9	5.8	0.6	100.0
Germany (W) (1989)	9.8	1.0	4.2	83.3	0.3	0.9	0.5	100.0
Spain (1990)	14.4	3.4	2.6	75.2	1.3	1.8	1.2	100.0
France (1989)	7.8	2.1	4.3	80.9	1.7	2.5	0.7	100.0
Greece[2] (1987/88)	10.3	24.0	8.0	55.9	-	0.4	1.4	100.0
Ireland (1987)	17.1	5.5	3.4	36.5[3]	1.8	35.7[4]	0.1	100.0
Italy (1989)	15.5	2.8	21.1	58.0	-	2.3	0.3	100.0
Luxembourg (1985)	8.7	1.5	3.5	83.8	0.1	1.8	0.7	100.0
Netherlands (1991)	4.2	0.6	5.1	87.1	0.2	2.1	0.8	100.0
Portugal (1989/90)	27.5	-	4.0	35.7	-	0.5	32.4[5]	100.0
United Kingdom (1991)	10.0	1.3	11.1	67.7	0.2	9.6	0.3	100.0
North America Canada (1991)	13.3	1.6	13.4	63.5	1.4	5.2	1.5	100.0
United States (1991)	14.0	1.4	13.4	66.9	0.4	3.7	0.3	100.0

[1]   Differences due to rounding.
[2]   Including pensioner households with head of household 42 - 54 years <u>and</u> main income from pensions.
[3]   Retirement and old age contributory pensions.
[4]   Includes non-contributory pensions.
[5]   Including income in kind of farmers etc.

<u>Source</u>:   See Table 1

Table 4: **Ratios of average net equivalent income of persons living in pensioner households to average net equivalent income of persons living in non-pensioner households by age of head of pensioner household**

- percent -

Country (Year of reference)	old OECD equivalence scale				new OECD equivalence scale			
	55-64 years	65-74 years	75 and over	all	55-64 years	65-74 years	75 and over	all
EU-States Belgium (1992)	94.6	91.1	86.3	91.5	89.8	83.7	75.9	84.4
Denmark (1992)	95.8	81.5	70.8	81.5	90.4	75.2	62.9	74.4
Germany (W) (1989)	88.9	100.2	87.6	92.8	84.6	93.3	78.8	85.9
Spain (1990)	97.4	99.0	92.6	97.2	94.4	92.7	84.3	91.7
France (1989)	103.5	104.4	94.1	100.7	96.8	95.2	84.2	92.0
Greece[1] (1987/88)	111.4	88.1	78.9	90.2	n.a.	n.a.	n.a.	n.a.
Ireland (1987)	88.6	90.8	87.3	89.2	85.7	83.3	78.5	83.4
Italy (1989)	83.4	78.8	74.2	79.0	79.8	73.6	67.1	73.8
Luxembourg (1985)	100.9	95.8	96.0	98.0	96.2	87.3	85.2	90.7
Netherlands (1991)	101.8	104.3	92.8	100.6	95.0	95.3	82.3	91.7
Portugal (1989/90)	81.7	72.0	60.2	72.2	n.a.	n.a.	n.a.	n.a.
United Kingdom (1991)	86.9	81.6	71.2	79.6	82.4	75.8	64.5	73.9
North America Canada (1991)	103.7	98.4	90.9	97.6	99.9	92.0	82.5	91.3
United States (1991)	99.0	101.4	98.2	99.9	95.9	95.1	90.4	93.8

[1]   Including pensioner households with head of household 42 - 54 years <u>and</u> main income from pensions.
n.a.=   not available
<u>Source</u>:   See Table 1

Table 5: **Ratios of net equivalent income of single female and male pensioners to net equivalent income of pensioner couples by age of head of household (old OECD scale)**

- percent -

Country	single female pensioner				single male pensioner			
(Year of reference)	55-64 years	65-74 years	75 and over	all	55-64 years	65-74 years	75 and over	all
EU-States Belgium (1992)	101.8	100.0	99.7	96.4	94.6	126.3	150.5	126.9
Denmark (1992)	90.1	95.7	101.1	90.6	89.0	94.9	110.8	95.5
Germany (W) (1989)	111.4	100.6	93.6	97.2	72.1	127.7	127.3	117.2
Spain (1990)	102.2	96.4	95.6	96.3	105.1	123.8	124.2	120.1
France (1989)	91.2	90.5	91.2	87.4	121.6	103.6	122.5	111.9
Greece[1] (1987/88)	106.4		126.9	114.0	147.7		128.8	131.9
Ireland (1987)	109.6	95.1	105.7	100.8	82.5	97.3	101.5	89.5
Italy (1989)	97.2	103.8	93.6	97.7	119.4	127.7	100.8	115.7
Luxembourg (1985)	99.1	108.7	105.8	102.9	113.3	127.6	150.1	129.6
Netherlands (1991)	128.6	102.3	106.2	105.6	112.9	129.1	136.0	126.5
Portugal (1989/90)	77.7	87.7	80.6	81.0	83.2	115.8	102.2	125.9
United Kingdom (1991)	96.5	85.4	84.3	85.1	78.8	113.9	95.0	100.0
North America Canada (1991)	81.3	91.1	92.0	88.6	81.7	101.0	102.5	97.2
United States (1991)	83.5	74.7	73.1	74.5	80.9	94.1	87.6	89.3

[1]   Including pensioner households with head of household 42 - 54 years <u>and</u> main income from pensions.

n.a.=   not available

<u>Source</u>:   See Table 1

Table 6: **Persons in pensioner households by relative net equivalent income brackets as percentage of average net equivalent income**

- percent -

Country	Old OECD scale				New OECD scale			
(Year of reference)	under 50%	50% - 75%	75% 150%	over 150%	under 50%	50% - 75%	75% - 150%	over 150%
EU-States Belgium (1992)	7.2	27.9	57.6	7.3	9.6	32.4	52.1	5.9
Denmark (1992)	4.1	42.7	49.2	3.9	9.0	47.7	40.3	3.1
Germany (W) (1989)	9.5	26.7	55.7	8.2	10.8	31.1	52.2	5.9
Spain (1990)	13.6	26.5	47.6	12.5	17.7	26.1	45.1	11.2
France (1989)	11.9	26.4	47.7	14.0	15.2	28.6	44.5	11.7
Greece[1] (1987/88)	21.1	24.4	39.1	15.4	n.a.	n.a.	n.a.	n.a.
Ireland (1987)	10.8	34.7	45.3	9.2	13.4	37.7	41.6	7.4
Italy (1989)	17.6	30.7	42.8	8.8	n.a.	n.a.	n.a.	n.a.
Luxembourg (1985)	8.5	23.2	58.7	9.6	11.1	26.3	55.6	7.0
Netherlands (1991)	3.9	39.4	44.6	12.1	5.1	46.4	39.0	9.4
Portugal (1989/90)	27.5	28.1	34.9	9.5	n.a.	n.a.	n.a.	n.a.
United Kingdom (1991)	23.3	34.9	33.3	8.6	31.9	29.3	31.4	7.4
North America Canada (1991)	7.2	30.7	50.5	11.6	10.3	34.2	45.5	9.9
United States (1991)	20.5	22.1	41.4	16.0	23.8	22.5	39.5	14.2

[1]   Including pensioner households with head of household 42 - 54 years <u>and</u> main income from pensions.
n.a.=   not available
<u>Source</u>:   See Table 1

Table 7: Poverty ratios of persons living in pensioner households at three different poverty lines based on two different equivalence scales

- percent -

Country	Old OECD scale			New OECD scale		
(Year of reference)	under 40%	under 50%	under 60%	under 40%	under 50%	under 60%
EU-States						
Belgium (1992)	3.2	7.2	15.9	4.2	9.6	21.3
Denmark (1992)	2.5	4.1	19.2	2.9	9.0	30.0
Germany (W) (1989)	3.6	9.5	17.0	4.7	10.8	21.9
Spain (1990)	6.3	13.6	24.9	7.1	17.7	28.2
France (1989)	5.4	11.9	22.1	7.0	15.2	27.5
Greece[1] (1987/88)	13.6	21.1	30.1	n.a.	n.a.	n.a.
Ireland (1987)	4.5	10.8	18.6	5.2	13.4	28.9
Italy (1989)	9.2	17.6	30.5	n.a.	n.a.	n.a.
Luxembourg (1985)	2.6	8.5	16.2	3.3	11.1	19.9
Netherlands (1991)	2.6	3.9	12.8	3.0	5.1	27.7
Portugal (1989/90)	13.8	27.5	39.4	n.a.	n.a.	n.a.
United Kingdom (1991)	9.1	23.3	40.2	13.1	31.9	45.6
North America						
Canada (1991)	2.6	7.2	15.4	3.4	10.3	24.3
United States (1991)	11.1	20.5	29.6	14.2	23.8	32.9

[1] Including pensioner households with head of household 42-54 years and main income from pensions.

n.a.=   not available

Source: See Table 1

Table 8: **Poverty ratios (50% line, old OECD scale) of persons in pensioner households by household type and age of head of household**

- percent -

Country	Household type				Age of head of household		
(Year of reference)	single female	single male	couples	other	55 - 64 years	65 - 74 years	75 and more
EU-States Belgium (1992)	3.6	(6.1)	9.3	6.0	6.7	6.6	9.0
Denmark (1992)	6.3	6.6	2.7	(2.0)	2.3	3.4	6.2
Germany (W) (1989)	10.0	(3.5)	7.9	13.6	13.3	7.0	9.5
Spain (1990)	6.9	(1.8)	12.6	14.9	15.6	11.1	15.2
France (1989)	12.7	9.9	10.0	14.5	12.2	10.3	13.3
Greece[1] (1987/88)	21.2	16.6	25.1	17.3	10.6	25.2	
Ireland (1987)	(1.1)	20.2	7.7	12.2	15.4	8.2	5.6
Italy (1989)	17.5	14.6	14.8	19.7	18.1	18.5	15.2
Luxembourg (1985)	6.6	(8.1)	11.8	(6.2)	6.2	11.7	(7.6)
Netherlands (1991)	(2.0)	(4.8)	4.2	(5.8)	6.7	2.5	4.0
Portugal (1989/90)	41.6	36.9	32.6	22.1	19.7	27.4	42.7
United Kingdom (1991)	29.7	18.6	26.7	13.5	15.3	22.6	30.4
North America Canada (1991)	4.6	7.8	5.8	9.8	15.5	4.9	4.0
United States (1991)	30.9	18.0	14.0	22.9	21.1	19.4	21.8

[1]   Including pensioner households with head of household 42 - 54 years <u>and</u> main income from pensions.

( ) =   Figures in brackets are based on very few observations.

<u>Source</u>:   See Table 1

Table 9: **Relative Positions of Countries**

Country (Year of reference)	Share of pension income in total net house-hold income low < 60 % med. 60-80 % high > 80 %	Ratio of net equiv. income pensioner/ non-pensioner (old OECD scale) low < 85 % med. 85 - 95 % high > 95 %	Difference between female/ male single pensioners low > 25 % med. 20 - 25 % high < 20 %	Inequality among pensioners (combined top and bottom share) low > 30 % med. 20 - 30 % high < 20 %	Poverty among pensioners 50%-Line old OECD scale low > 16 % med. 8 - 16 % high < 8 %
EU-States					
Belgium (1992)	high	medium	low	high	high
Denmark (1992)	medium	low	high	high	high
Germany (W) (1989)	high	medium	medium	high	medium
Spain (1990)	medium	high	medium	medium	medium
France (1989)	high	high	medium	medium	medium
Greece[1] (1987/88)	low	medium	high	low	low
Ireland (1987)	medium[2]	medium	high	high	medium
Italy (1989)	low	low	high	medium	low
Luxembourg (1985)	high	high	low	high	medium
Netherlands (1991)	high	high	medium	high	high
Portugal (1989/90)	low	low	low	low	low
United Kingdom (1991)	medium	low	high	low	low
North America					
Canada (1991)	medium	high	high	high	high
United States (1991)	medium	high	high	low	low

[1] Including pensioner households with head of household 42 - 54 years <u>and</u> main income from pensions.
[2] Including non-contributory pensions.
n.a.= not available
<u>Note</u>: The term „high" is used if a country is among the top group with respect to the preferred value of an indicator. Low inequality or low poverty leads to the qualification „high". Quantitative limits are given in the column headings based on judgement by the author.

Source: See Table 1.