

# **Persistent and Consistent Poverty in the 1994 and 1995 Waves of the European Community Household Panel Study**

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## **Abstract**

In this paper we attempt to contribute to the growing literature on the mismatch observed when comparing income and deprivation measures of poverty through an analysis of the first two waves of the European Community Household Panel Study. We do so by developing for each country measures of point in time persistent income and deprivation measures. Our analysis shows that the mismatch between income and deprivation measures is greatest at the least generously defined poverty lines. A similar relationship was found for persistence. But while consistency was related to overall level of poverty this was not true for persistence. To develop further our understanding of different poverty measures the relationship of these variables to economic strain is considered. While deprivation has a substantially stronger impact than income a significant interaction between the two factors is found to exist. As a prelude to a systematic multivariate analysis of the determinants of poverty, the final section illustrates the manner in which conclusions about the impact of social class on poverty are affected by the choice of poverty measure and the country under consideration and places these findings in the context of the recent debate on the democratisation of poverty.

## **1. Introduction**

A large body of comparative work on poverty rates involving a relative income line approach exists. Customarily, as in a number of studies by the EU Commission or Eurostat, this involves setting the poverty line at a particular percentage of mean or median income. (O'Higgins and Jenkins, 1990: ISSAS 1990: Hagenaars *et al.* 1994, Eurostat, 1999). This research is based on the view that poverty has to be seen in terms of the standard of living of the society in question. The general rationale is that those falling more than a certain 'distance' below the average or normal income of the society are unlikely to be able to participate fully in the society. In relying on income poverty lines to make statements about poverty defined in this way, it is necessary to assume that those falling below the specified income poverty line are experiencing unacceptable levels of deprivation. However, Ringen (1987, 1988) has argued that low income is quite unreliable as an indicator of poverty, because it fails to identify households experiencing distinctive levels of deprivation.

More recently, starting with Townsend's research in Britain where he attempted to analyse styles of living and to develop objective indicators of deprivation, where households lack an amenity or do not participate in an activity which a majority of the population have or participate in. Subsequent work in this area include Townsend and Gordon (1989) for Britain, Mayer and Jencks (1988) for the USA, Muffels (1993) and Muffels and Dirven (1998) for the Netherlands, Callan, Nolan and Whelan (1993) and Nolan and Whelan (1996a&b) for Ireland and Hallerod (1995,1998) Britain and Sweden and Kangas and Ritakallio (1998) for Finland. However, the latter studies have consistently shown that there is a substantial mismatch between poverty measured indirectly in terms of relative income lines and poverty measured directly in terms of observed deprivation. Even where a variety of deprivation dimensions are distinguished and one focuses on those which might be expected to relate most closely to current income, major discrepancies between income and deprivation are still found (Muffels 1993, Nolan & Whelan 1996<sup>a&b</sup>). The problem is exacerbated in cross-national work by the fact that the degree of mismatch varies substantially across countries (Whelan *et al* 2000).

There are a number of reasons why the relationship between relative income measures and deprivation may be rather weaker than anticipated. These include measurement

and definitional problems. However, a number of authors have also pointed to the potential role of income and poverty dynamics (Nolan and Whelan, 1996, Hallerod, 1998). The impact of low income on living standards depends on the length of time low income persists, and the availability of other resources (such as savings and assets) to supplement current income. One would also expect current life-style and deprivation to be influenced by many factors other than current income. A range of social and economic processes will influence levels of deprivation, and households at similar levels of current income will have arrived at that position from a variety of different trajectories. Thus income at a point in time may provide a relatively poor indicator of command over resource. Furthermore, its ability to do so may vary systematically across countries with current income tending to provide a better indicator in poorer countries where the possibility of drawing on alternative resources whether through accumulated savings or assets or welfare state buffering is less available.

The foregoing suggests that a comparative data set that allows us to explore the relationship between income poverty measures at more than one point in time and a measure of deprivation that can be shown to be reliable across countries offers the possibility of clarifying the nature of the mismatch consistently found in the earlier literature. The first two waves of the European Community Household Panel Study (ECHP) provides just this opportunity. The availability of income information for the calendar years 1993 and 1994 provides the opportunity to develop measures of persistent poverty, although over a short time scale. In addition the availability of life-style deprivation measures will permit the creation of consistent poverty measures, in the sense that those below a relative income poverty line are experiencing a corresponding level of deprivation.

Central to the approach we adopt is a particular understanding of deprivation. Like poverty, deprivation is a widely used term that is often applied without definition of the underlying concept. Consequently, significant differences can be observed in the manner in which it is interpreted (Townsend, 1988). In our view a central element in the concept of deprivation, as it is widely understood, is that it refers to being *denied* the opportunity to have or do something. We therefore take deprivation to mean an inability to obtain the goods, facilities and opportunities to participate identified

generally as appropriate in the community in question. It refers to the results of constraints on people's choices not simply the outcomes themselves. While the later are much easier to observe, distinguishing between the impact of constraint and choice must remain a central objective in measuring deprivation. In doing so we will be interested in indicators where one might reasonably expect *a priori* that absence will most often be attributable to limited resources rather than other constraints such as ill health, accidents of location, or differences in taste. This helps to restrict the areas one seeks to cover in selecting indicators by allowing a concentration on those that are likely to be directly affected by access to financial resources.<sup>1</sup>

All other things being equal, we would expect those individuals living in households we define as poor to also come from households, which report difficulty in making ends meet. To facilitate our understanding of income-deprivation mismatches we explore the relationship of our various measures and a measure of subjective economic

Our objectives in developing measures of consistent and persistent poverty go beyond a descriptive comparison of poverty rates or indeed cross-national variation in such rates. Rather our analysis is guided by the hypothesis that, to the extent to which the dependent variables we employ are influenced by the accumulation and erosion of resources rather than being, to a significant degree, a consequence of transient circumstances, the more likely we are to observe a greater social structuring of disadvantage. To this end, in the final sections of this paper, we provide an exploratory analysis of the consequences of choice of poverty measure for conclusions relating to the social structuring of poverty.

The structure of the paper is as follows. In Section 2 we provide a description of the data employed and of the construction of the poverty, deprivation and economic strain measures. In Section 3 we examine the relationship between relative income line poverty and deprivation. Section 4 focuses on income poverty persistence. Section 5 deals with the relationship between current, persistent and income poverty and economic strain. Section 6 provides an exploration of the extent to which our understanding of the social composition of the poor and the processes leading to being at risk of poverty is influenced by our choice of poverty measure. This is achieved

through an examination of the significance of manual-non-manual differences across the range of poverty measures employed. Finally in section 7 we bring together our conclusions.

## **2. Data**

The results presented in this paper are based on the User Data Base (UDB) containing data from Wave 1 and Wave 2 of the ECHP as released for public use by Eurostat. Our analysis relates to eleven countries.<sup>2</sup> The income measure employed is total disposable income, including transfers and after deduction of income tax and social security contributions, with the household taken as the income recipient unit. The principal accounting period for income employed in the ECHP is the previous calendar year: with the Wave 1 survey carried out in 1994 and Wave 2 in 1995, this means the income measures relate to calendar 1993 and calendar 1994 respectively.

Since a given level of household income will support a different standard of living depending on the size and composition of the household, we adjust for these differences using equivalence scales. The scale we employ at this point is often termed the “modified OECD” scale: where the first adult in a household is given the value 1, with this scale each additional adult is given a value of 0.5 and each child a value of 0.3.<sup>3</sup> We thus calculate the number of equivalent adults in each household using this scale, and construct equivalised income by dividing household income by this number. Equivalised income of the household is then attributed to each member, assuming a common living standard within the household, and our analysis is carried out using the individual as the unit of analysis. A change in the equivalised income of a particular individual over time may thus reflect either a change in the total income coming into the household, or a change in the number of adults and children depending on it, or both. Our aim is to assess the extent of income mobility from one year to the next by comparing the equivalised income reported for 1993 with that reported for 1994.

For the purposes of the analysis in this paper we identified thirteen household items which could serve as indicators of the concept of life-style deprivation as outlined above.<sup>4</sup> These items are considered to cover a range of what we term Current Life-Style Deprivation. A further eleven items relating to housing and the environment, which in principle meet our definition of deprivation, have been excluded because

they have been shown to form quite distinct clusters to the CLSD measure and to have significantly weaker correlations with income (Whelan *et al* , 2000). Thus the exclusion of these items will minimise the extent of income-deprivation mismatch found in the ECHP data. The format of the items varied, but in each case we seek to use measures which can be taken to represent enforced absence of widely desired items. Respondents were asked about some items in the format employed by Mack & Lansley (1985): for each household it was established if the item was possessed/availed of, and if not a follow-up question asked if this was due to inability to afford the item. The following six items took this form:

- A car or van.
- A colour TV.
- A video recorder.
- A micro wave.
- A dishwasher.
- A telephone.

In these cases we consider a household to be deprived only if absence is stated to be due to lack of resources.

For some items the absence and affordability elements were incorporated in one question, as follows: “There are some things many people cannot afford even if they would like them. Can I just check whether your household can afford these if you want them?”. The following six items were administered in this fashion:

- Keeping your home adequately warm.
- Paying for a week’s annual holiday away from home.
- Replacing any worn-out furniture.
- Buying new, rather than second hand clothes.
- Eating meat chicken or fish every second day, if you wanted to.
- Having friends or family for a drink or meal at least once a month.

The final item relates to arrears; we consider a household as experiencing deprivation in terms of this item if it was unable to pay scheduled mortgage payments, utility bills or hire purchase instalments during the past twelve months.



An index based on a simple addition of these thirteen items give a reliability coefficient of 0.80. For our present purposes we use a weighted version of this measure in which each individual item is weighted by the proportion of households possessing that item in each country. As a consequence deprivation of an item such as a video recorder will be counted as a more substantial deprivation in Denmark as compared to Greece. This would clearly be unsuitable for the purposes of comparison of absolute levels of deprivation across countries. However, our purpose in the present paper is explicitly relative. In each country we wish to identify for each income poverty line a corresponding deprivation threshold. Our weighted CLSD measure makes this possible and allows in principle for the mismatch between poverty defined in income terms and deprivation terms to vary from zero to one hundred per cent. Having developed a set of dummy variables based on the corresponding deprivation thresholds we can then examine the extent of consistent and inconsistent poverty and the degree to which this varies across poverty lines. We will then examine the relationship between persistent and consistent poverty, their consequences for subjective economic strain. Finally, we provide an exploration of the extent to which varying conceptions of poverty lead to different accounts of the extent to which poverty is socially structured.

### ***3. Relative Income Poverty and Deprivation***

We commence our analysis by an examination of variation in relative income poverty across poverty lines and nation. The results are set out in Table 1 for the 40%, 50% and 60% for the median based relative income lines. While the pattern of variation in risk of poverty across countries is broadly as we would expect it does depend to some extent on the specific poverty line under consideration. For all three lines Denmark has the lowest poverty rate and Greece and Portugal the highest. But the disparity in ratio terms, although not in absolute terms, declines, as the threshold becomes more generous. Spain and Italy are consistently found to have lower rates than Greece and Portugal while the Netherlands and France are consistently found to have the lowest poverty rates after Denmark. Belgium displays a slightly less favourable profile. The UK occupies an intermediate position at the 40% line but at the 50% and 60% lines its rate is clearly exceeded only by Greece and Portugal. Ireland has relatively low rates at the 40% and 50% lines but its relative position deteriorates sharply at the 60% line where it has the same poverty rate as Belgium.

*Table 1: Percentage of Persons Present in Both Waves Below Median-Based Relative Income Poverty Lines Modified OECD Scale, Wave 1*

	<i>% Of Persons Below Proportion of Median</i>		
	40%	50%	60%
Germany	7.5	11.7	15.9
Denmark	1.7	4.1	8.3
Netherlands	3.2	5.9	10.3
Belgium	5.7	10.5	17.1
France	4.6	8.6	15.0
UK	5.5	12.8	20.8
Ireland	2.3	6.6	17.1
Italy	8.2	12.5	18.8
Greece	11.3	15.6	22.1
Spain	7.3	12.4	20.1
Portugal	11.7	17.0	23.6

In order to examine the degree of mismatch between poverty measurement in direct and indirect terms for each of the relative income lines we establish a corresponding deprivation threshold where the percentage of respondents falling below the cut off point for the weighted CLSD measure is identical to that for the relative income line. In Table 2 we show the degree of consistency between the income and deprivation classifications at each of the three poverty lines. At the 40% line the degree of consistency is remarkably low. This is particularly true in most of the countries with low poverty rates. Thus in Denmark only 4 per cent of those below the 40% median income based line are also above the corresponding deprivation threshold. Put another way the degree of mismatch is 96 per cent. For Belgium the consistency rate is 6 per cent. For Ireland, the UK, Germany and the Netherlands the figure does not exceed 15 per cent. The degree of consistency is higher in the other countries rising to approximately one in four for France, Italy and Spain. However, even in Greece and Portugal where close to one in eight are found below the 40% income line the level of consistency reaches only one in three. At the 50% line the degree of consistency increases significantly but remains low in absolute terms. In Denmark it fails to rise above 13 per cent and in four of the other countries, namely Germany, the Netherlands, Belgium and Ireland, it hardly rises above 20 per cent. This figure ranges between 29 per cent and 34 per cent for France, the UK, Italy and Spain. Once again it attains its highest values in the countries with the highest poverty rates with a level of 39 per cent being achieved in Greece and 45 per cent in Portugal.

*Table 2: % Of Persons Above Corresponding Deprivation Threshold by Median-base Income Line*

	<i>40% Median Income</i>	<i>50% Median Income</i>	<i>60% Median Income</i>
Germany	12.5	21.4	31.9
Denmark	4.4	13.4	17.0
Netherlands	15.3	22.7	39.2
Belgium	6.4	20.1	33.3
France	22.4	29.0	39.3
UK	11.6	33.9	47.2
Ireland	9.5	22.2	44.3
Italy	25.5	34.4	42.2
Greece	33.8	39.3	45.7
Spain	25.6	32.3	46.1
Portugal	34.4	45.0	52.2

The trend towards greater consistency at the higher income lines is continued for the 60 per cent line. Denmark once again exhibits the lowest level of consistency with a figure of 17 per cent. However, in every other country the figure exceeds thirty per cent. After the Netherlands, Germany and Belgium display the greatest degree of mismatch with the consistency level not rising above one in three. With the exception of Portugal the remaining countries are found in a range of consistency between 39 per cent and 46 per cent.

It is clear that at the 40%, level direct and indirect methods of measuring poverty appear to be tapping quite different phenomena. The degree of mismatch is such that not only are they identifying different groups of individuals but the socio-demographic profiles of such groups must inevitably be radically different. As a consequence the methods are bound to offer quite different answers to questions relating to the underlying causes of extreme poverty. This is an issue to which we will return in our later analysis. This conclusion also holds, although with somewhat less force at the 50% income line. It is only at the 60% line that the combination of the numbers under the line and the degree of consistency between income and deprivation classifications offers the possibility of combining both approaches in a manner which offers the possibility of improving our understanding of the nature of poverty.<sup>5</sup> Before proceeding to examine these possibilities we should perhaps make clear that the difficulties involved in applying the 40% median-income based line are actually greater than is apparent from Table 2. One possibility that exists is that, while

consistency rates for the corresponding deprivation level are particularly low at the 40% income line, many of this group may be found not too far above the 40% deprivation threshold. The increased levels of consistency at the higher lines might be simply a consequence of the heightened probability of those below the 40% income line being found below the 50% and 60% deprivation thresholds. In fact, as is clear from Table 3, there is no straightforward pattern of those below the 40% income line having higher levels of risk of being above the 60% deprivation threshold than those located between the 40-50% and 50-60% lines. In only one case, that of Denmark, is the risk level at a maximum the 40% line. On the other hand in five countries, Germany, Belgium, the UK and Ireland it is at its lowest level among those below the 40% line. The category with the highest average level of risk is the 40-50% one. In every country there is a clear contrast between those above the 60% income line and all others line, however, below this line movement from more generous to less generously defined poverty lines does not lead to the identification of progressively deprived groups.

*Table 3: Percentage Above Deprivation Threshold Corresponding to the 60% Income Line by Income Poverty Location*

	< 40 %	40-50 %	50-60%	60% +
Germany	23.7	37.9	40.7	12.9
Denmark	27.9	13.0	15.0	7.5
Netherlands	35.2	37.4	43.4	7.3
Belgium	24.8	38.8	36.6	13.9
France	41.1	43.2	35.8	10.7
UK	38.5	55.5	45.6	13.9
Ireland	21.8	53.6	45.4	11.6
Italy	45.5	42.8	37.5	13.4
Greece	52.3	42.6	36.4	15.4
Spain	52.8	46.8	39.2	14.2
Portugal	54.4	54.7	46.4	14.8

In Table 4 we show the extent of cross-national variation in the risk of being consistently poor at the 60% line, that is of being both below the income line and above the corresponding deprivation threshold. The extent to which this pattern of variation differs from that associated with the 60% median-income based line is entirely a consequence of cross-country variation in the degree of income-deprivation mismatch. As a consequence of the greater degree of consistency between income and deprivation approaches found in countries with higher income poverty rates, the

combined approach reveals much sharper disparities between counties, particularly between Northern European and Southern European Countries. This remains true

*Table 4: % Below 60% Income Line and Above the Deprivation Threshold by Country*

	%
Germany	5.1
Denmark	1.4
Netherlands	4.0
Belgium	5.7
France	5.9
UK	9.8
Ireland	7.6
Italy	7.9
Greece	10.1
Spain	9.2
Portugal	12.3

we leave aside Denmark which because of extremely high rates of income - deprivation mismatch has only 1.4 per cent of individuals falling below the combined threshold. For five other countries the Netherlands, Germany, Belgium and France the figure lies between 4 and 7 per cent. For Ireland, Italy and Spain it lies between 8 and 9 per cent. It rises to 10 per cent for the UK and Greece and peaks at 12 per cent for Portugal. Although there are some slight shifts and Greece rather than Portugal now has the highest rate, the rank ordering of countries remains broadly similar.

#### **4. Poverty Persistence**

In order to enhance our understanding of consistent and inconsistent poverty we now direct our attention to poverty persistence. In Table 5 we make use of information from Waves 1 and 2 of the ECHP to assess the degree to which those who were income poor in the calendar year 1993 were also found in that state in 1994 and the extent to which this varies across income line and country. We should keep in mind when examining these figures that we do not know when those recorded as poor in 1993 entered that state. Thus those defined as persistently poor will include those poor for a duration of two years alongside those whose experience of poverty is of a much longer term nature. Correspondingly we have no information regarding spell duration for those who have exited from poverty in 1994 and this group will contain cases who have experienced longer spells of poverty than at least some of the households who

did not exit. It is, however, well known that cross-sectional analyses do not give a representative picture of the lives of all those who ever experience poverty. Those observed at particular point in time will display significantly longer spells of poverty than those ever in poverty. Bane and Ellwood (1986) make the distinction between an *ever begun* sample and a *point in time* sample. The example of a hospital is frequently chosen to illustrate what is at stake. If one visits a hospital on any particular day one will encounter a high proportion of long-term patients but such patients, while constituting a high proportion of the existing stock of patients, comprise a much smaller fraction of the flow of patients during any specific period of time, as one set of short-term patients replaces another. As a consequence the contrast between the those poor in 1993 and 1994 and those poor in either of those years is likely to involve something more than a comparison between those poor at one and two points in time.<sup>6</sup> Those who exited poverty in 1994 are likely to have had shorter durations of poverty than those who remain and those who enter are likely to have shorter subsequent poverty spells. It remains true that the persistently poor categories will still contain significant internal variation in length of poverty spell experienced up to 1994. The foregoing does not in anyway undermine the analyses we intend to present in the subsequent sections of the paper, but it should be kept clearly in mind when considering the implication of the results we present.

Returning to a consideration of the results presented in Table 5 we find that, with the exception of the Netherlands, where rates are equal for the 40% and 50% lines, poverty persistence is greater the more generous the poverty threshold. At the 40% line it ranges from a low of less than one in four in the U.K. to a high of six out of ten in Germany. The fact that this is not simply a consequence of these cases being located just above the 40% threshold is shown by the fact that if we calculate the probability of being below the 60% income line in 1994 the highest probability is found among those below the 40% line in 1993 in only seven out of the eleven cases.<sup>7</sup> For the 50% line the lowest level of persistence is found in the Netherlands, Denmark and the UK where in the region of four out of ten are found below this threshold on both occasions. Germany and Portugal display the highest levels of persistence with six out of ten and close to seven out of ten remaining immobile. For the remaining countries the persistence rates vary between 50 and 60%. The degree of poverty immobility is greatest at the 60% income line. The highest levels are observed

in Portugal, Ireland and Germany where they exceed seven out of ten. In every country the rate is greater than one in two and in six of these cases it reaches a level of at least six out of ten.

*Table 5: Poverty Persistence 1993-1994*

	<40%	<50%	<60%
Germany	59.4	60.7	70.2
Denmark	33.0	42.0	57.6
Netherlands	41.7	41.0	52.2
Belgium	36.2	50.2	57.6
France	36.2	50.7	64.5
UK	24.4	44.8	59.9
Ireland	34.6	57.8	74.0
Italy	43.3	50.5	60.3
Greece	52.1	56.6	63.5
Spain	45.1	48.7	61.5
Portugal	47.7	67.5	74.1

Thus persistence rates are generally higher at the more generous income poverty lines and this may well contribute to the lower degree of income-deprivation mismatch observed at such levels. However, variation in persistence across countries is unrelated to corresponding differences in national poverty rates and as a consequence such variation cannot account for the tendency for those countries with higher poverty rates to exhibit a significantly lower level of income-deprivation mismatch. More detailed analysis of poverty dynamics shows that cross-national variation in poverty persistence between Waves 1 & 2 of the ECHP is largely accounted for by structural or shift effects reflecting the net effects of changes in the poverty distribution when the role of other factors affecting the pattern of association have been taken into account. (Nolan *et al* 2000). Country variations in consistency are more likely to be accounted for by the fact that countries with lower poverty rates also provide a broader and more generous range of welfare benefits, in terms of both level and duration.

In Table 6 we examine the distribution of poverty persistence at the 60 median income-based level by country. In each country the level of persistent poverty lies intermediate between the rate observed for income poverty at the 60% income line in 1994 and the figure for consistent poverty at this line. With the exception of a slight deterioration in the position of Germany, the rank ordering of countries varies

relatively little across countries. Relatively modest variation is observed in the percentage poor in either wave 1 or 2 with the percentage varying between 9 per cent in the Netherlands and 15 per cent in Belgium. The sharper contrasts between countries are found at the extremes. The percentage consistently poor is lowest in Denmark and the Netherlands at 5 per cent, it rises to 10 per cent for Belgium, to 11-12 per cent for Germany, Ireland, the UK and Spain before rising to 14 per cent in Greece and finally 18 percent in Portugal.

*Table 6 : Distribution of Persistent Poverty at the 60% Income Line by Country*

	<i>Poor at Neither Time</i>	<i>Poor in 1993 or 1994</i>	<i>Poor at Both Times</i>
Germany	77.9	11.0	11.2
Denmark	85.8	9.5	4.8
Netherlands	85.7	8.9	5.4
Belgium	75.1	15.0	9.9
France	78.9	11.4	9.7
UK	71.3	16.3	12.4
Ireland	75.6	12.7	11.7
Italy	74.7	14.0	11.3
Greece	71.1	14.9	14.0
Spain	73.5	14.2	12.3
Portugal	69.7	12.8	17.5

In Table 7 we set out, for each of the countries in the ECHP, the relationship between poverty persistence at the 60% median income line and probability of being above the corresponding deprivation threshold in 1994. The impact is quite striking. If for the moment we leave aside Denmark and Germany the results are extremely clear-cut. For the group who are income poor at neither time the deprivation is relatively low ranging from a low of 7 per cent in the Netherlands to a high of 14 per cent in Greece. For those income poor in one of the two waves the percentage found above the deprivation threshold rises to from 26 per cent in Belgium to 39 per cent in Portugal. Finally, for the persistently poor income group the level of deprivation ranges from 37 per cent in Belgium to 56 per cent in Portugal. It is evident that cross-national variations in levels of deprivation are significantly less within poverty category than overall. In the category of those poor at one point in time ten of the countries lie between 29 and 39 per cent. While for the persistently poor group eight countries lie between 46 and 56 per cent. Denmark forms an exception in a number of ways. The same contrast, as in all other countries, is found between those poor at neither time



*Table 7 : Percentage Above Corresponding Deprivation Threshold by Poverty Persistence at the 60% Median Income Line by Country*

	<i>Poor at neither time</i>	<i>Poor in 1993 or 1994</i>	<i>Poor at both times</i>
Germany	11.2	30.5	34.2
Denmark	7.0	16.0	15.8
Netherlands	6.7	29.0	41.4
Belgium	12.7	26.4	37.4
France	9.0	29.8	46.3
UK	11.4	37.2	53.0
Ireland	9.8	28.7	52.3
Italy	12.1	30.2	48.7
Greece	14.0	32.0	52.8
Spain	12.4	34.6	53.5
Portugal	12.7	38.5	56.4

nor the remaining individuals. However no further differentiation is found between those poor in either Wave 1 or Wave 2 and those found to be poor in both waves. This effect is also relatively weak in Germany. Thus for all countries we observe clear differences in the frequency of being above the poverty thresholds between those poor at neither time and all others. For ten of the twelve countries we observe a further significant differentiation in the mismatch in terms of income poverty and deprivation between those found to be poor in one of the waves and those persistently poor. The contrast between these groups, as we observed, undoubtedly conceals further differentiation in the poverty experiences of both groups, which would permit us to provide an even more satisfactory account of income-deprivation linkages.

### **5. Current, Persistent and Consistent Poverty and Economic Strain**

Since transient and persistent income poverty and the experience of correspondingly extreme life-style deprivation are clearly measuring rather different phenomena we can perhaps further our understanding of these differences and develop an understanding of how these different types of information may be combined by examining the manner in which they impact on variables for which, on the grounds of construct validity, we would expect to them to have predictable consequences. One such variable is the degree of economic strain experienced by a household. *A priori*, we would expect economic strain to be significantly related to both income poverty and location above the corresponding deprivation threshold. Current income would be expected to have an effect both for its consequences for current consumption and because of its impact on perceptions of future difficulties and opportunities. The

constituent items of the weighted CLSD measure, capturing as they do both failure to fulfil current consumption aspirations and the consequences of past successes and failures in accumulating items, should also be strongly related to economic strain.

The measure of economic strain we employ is based on the following question asked of all household reference persons in the ECHP: “Thinking now of your household’s total income, from all sources and from all household members, would you say that your household is able to make ends meet?” Respondents were offered six response categories ranging from “with great difficulty” to “very easily”. Here we distinguish between those who in Wave 1 experienced “extreme difficulty” or “difficulty” and all others. In Table 8 we compare the impact of income poverty at the 60% income line in 1993 and being above the corresponding life-style deprivation threshold in 1994. Keeping in mind that they represent equally sized groups, it is interesting to observe that in every country the impact of being above the deprivation threshold is substantially greater than that of income poverty.

*Table 8: Percentage Experiencing Economic Strain Among Those Falling Below the 60% Median Income Line in 1993 and Above the Corresponding Deprivation Threshold*

	<i>Below 60% Income Line in 1993</i>	<i>Above Corresponding Deprivation Threshold in 1994</i>
Germany	16.4	32.3
Denmark	22.5	55.4
Netherlands	40.8	65.5
Belgium	28.0	47.1
France	42.3	61.0
UK	43.1	61.8
Ireland	53.8	69.6
Italy	44.5	59.6
Greece	78.1	91.5
Spain	62.3	74.5
Portugal	57.0	71.5

The percentage of individuals residing in households experiencing extreme difficulty or difficulty in making ends meet ranges, for those below the 60% income line from 16 per cent in Germany to 78 per cent in Greece. For the deprivation dichotomy the corresponding range is from 32 per cent in Germany to 92 per cent in Greece. The most largest difference between the income and deprivation approaches emerged for Denmark and Germany. For the former, the rate of economic strain is almost two and

a half times as high among those above the deprivation threshold as among those below the 60% income line while for the latter the corresponding rate is two to one. Among the Southern European countries and Ireland this ratio falls to between 1.1 and 1.3 while for the remaining countries values in the range 1.4 to 1.7 are observed.<sup>8</sup>

In Table 9 we look at the joint impact of income poverty and being above the deprivation threshold. The results confirm the independent effects of both factors. Within both the deprived and non-deprived segments, income poverty substantially increases the level of economic strain experienced. Similarly, deprivation has an even greater impact among both poor and non-poor alike. What is perhaps most interesting about the pattern of results is the evidence of the manner in which income poverty persistence and deprivation interact in influencing level of economic strain. Among those above the deprivation threshold income persistence has little effect. However, for those below the threshold economic strain is significantly higher for those persistently poor compared to those observed to be poor in either Wave 1 or Wave 2.

*Table 9: Percentage Experiencing Economic Strain by Poverty Persistence at the 60% Income Line and Deprivation Threshold*

	<i>Below Deprivation Threshold</i>			<i>Above Deprivation Threshold</i>		
	<i>Income poor at neither time</i>	<i>Income poor at one point</i>	<i>Income poor at both time</i>	<i>Income poor at neither time</i>	<i>Income poor at one point</i>	<i>Income poor at both time</i>
Germany	2.6	6.4	5.6	24.8	39.6	43.1
Denmark	8.7	15.8	12.4	47.9	68.2	56.6
Netherlands	5.1	14.8	24.9	59.8	78.2	65.5
Belgium	5.7	6.7	11.6	37.5	55.3	63.4
France	9.5	19.7	28.8	52.2	67.6	70.1
UK	7.9	16.6	20.1	53.7	67.3	66.8
Ireland	16.9	32.0	46.7	68.0	75.1	68.2
Italy	7.9	16.5	32.4	50.0	63.8	72.2
Greece	39.4	58.8	67.4	88.4	91.3	95.8
Spain	24.5	44.2	50.8	67.1	76.5	83.1
Portugal	24.0	36.3	42.9	67.0	74.1	74.2

Denmark and Germany are again the exceptional cases with poverty persistence having little effect and, indeed, in the former case, if anything, being associated with a lower level of economic strain. Denmark thus exhibits a low level of median income-based poverty, a weak degree of association between such poverty and being above

the deprivation threshold or experiencing economic strain. This is directly related to the weak impact of poverty persistence on economic strain. Deprivation, however, does have a strong impact on economic strain. Germany, although also a deviant case, offers a somewhat different picture. It has a relatively high median income-based poverty rate. The degree of mismatch between such poverty and the corresponding level of deprivation is moderate. It displays a particularly low level of economic strain and persistent poverty has little additional effect on deprivation or economic strain. Once again though, deprivation strongly affects economic strain.

Notwithstanding these deviations, the combined impact of income poverty and deprivation is striking. If, for the purposes of illustration, we for the moment leave aside Germany which has a particularly low rate of economic strain and Greece which has a particularly high rate, we find that among those income poor and above the deprivation threshold the degree of economic strain ranges from a low point in the mid-fifties to a high point of eighty per cent. For those who are income poor at neither point in time and are below the deprivation threshold the corresponding range is from 5 to 25 per cent. Even in the absence of income poverty, deprivation has a significant impact as illustrated by a level of economic strain that ranges from 38 to 68 per cent. The significance of persistent income poverty in the absence of deprivation is indicated by a range of economic strain running from 12 to 51 percent. The corresponding figures for poverty in one of the two waves are 7 to 44 per cent. Thus, income and deprivation both contribute to our understanding of economic strain.

### ***6. Social Class and Poverty: The Implications of Poverty Measurement***

A comprehensive understanding of patterns of consistent and persistent poverty, and their implications for the subjective experience of economic difficulties, will require that we draw on the range of socio-demographic information available in the ECHP to establish the determinants of consistent and inconsistent poverty and transient versus persistent poverty.<sup>9</sup> The scale of analysis required is such as to make it impossible to comprehensively address such issues in the current paper. We will return to these questions in a subsequent paper. For the moment, we attempt to provide a bridge to such a multivariate analysis by examining the consequences for conclusions relating to social class of variations in the definition of poverty. As well as serving this methodological purpose our analysis, we hope, will also be of significant substantive

interest. Recently Leisering and Liebfried (1998:240-241) have developed the argument that an appreciation of *temporalisation*, in other words that poverty occurs in many temporal forms, leads to an appreciation of the *democratisation* or *transcendence* of poverty and the *biographisation of poverty*. Democratisation refers to the fact that

“While the risk of poverty is obviously higher for families in the lower economic social classes—the new poverty looms as a permanent risk facing middle class families, if only as a temporary condition” (Leisering and Liebfried, 1998:240).

Biographisation implies among other things that poverty is tied to specific life events and that temporary poverty reflects biographical transitions in life, triggered by events such as divorce, illness, leaving the parental home etc. As Breen and Goldthorpe (1999, forthcoming) have observed, in the context of the meritocracy debate, assessment of the impact of one variable, such as social class, relative to others is a particularly tricky task and exposes one to variety of methodological pitfalls.<sup>10</sup> One is on safer ground if hypotheses are formulated in terms of variation. Here we focus on such variation across country and type of poverty measure. In attempting to use the ECHP data to assess the extent of variation in class impact we are constrained by the fact that the nature of the occupational information available means that we must operate at a level of aggregation which is rather higher than we would ideally like. As a consequence our subsequent analysis will be conducted in terms of contrasts between the manual and non-manual classes.<sup>11</sup> Small employers, the self-employed without employees and farmers are treated as separate groups. However, for Greece and Portugal, for purposes of clarity, when reporting the composition of the poor we report the combined percentage for manual and farmers. Our inability to differentiate within the manual and non-manual classes clearly lessens the possibility of observing significant class effects. However, this will affect our conclusions relating to variation only to the extent that such internal variation varies across country or measure.

In the analysis that follows we deal first with the composition of the poor and then with the risk of poverty. In Table 10 we display composition in terms of membership of the four categories of the consistent poverty classification. The pattern of differentiation is quite striking although rather less sharp in Belgium and Italy than

elsewhere. As we move from the segment who are above the 60% income line and below the deprivation threshold to the polar opposite group who are income poor and deprived, the percentage manual (or manual plus farmers in the case of Greece and Portugal) increases monotonically. Among the most favoured group, for nine of the countries the relevant percentage lies in the range 30-39 per cent. Only in the cases of Spain and Portugal does it rise above forty per cent. For those below the income line but not above the income deprivation threshold the percentage rises substantially in every country giving an observed range running from 39 to 61 per cent. In moving to the group who are above the income line but above the corresponding deprivation threshold we observe a further increase in the value of our indicator in all eleven countries. For this group the relevant range lies between 51 and 82 per cent. Finally, focusing on the group who are both income poor and deprived, with the exception of Spain, we observe, a continuation of the trend towards a higher percentage of manual respondents, although the magnitude of the shift is relatively weaker in most countries.

*Table 10: Composition in Terms of Percentage Manual for Combined Income and Deprivation Categories at the 60% Line (Figures refer to manual plus farmers for Greece and Portugal)*

	<i>Below Deprivation Threshold</i>		<i>Above Deprivation Threshold</i>	
	<i>Above 60% Income Line</i>	<i>Below 60% Income Line</i>	<i>Above 60% Income Line</i>	<i>Below 60% Income Line</i>
Germany	33.3	39.2	60.7	72.0
Denmark	38.2	46.1	50.9	66.7
Netherlands	30.7	54.5	62.0	71.9
Belgium	30.1	38.8	46.4	55.3
France	33.6	42.3	62.7	65.5
UK	31.1	44.1	62.1	67.1
Ireland	34.6	56.7	68.2	83.5
Italy	35.1	40.9	51.1	59.2
Greece	38.8	61.3	69.6	79.6
Spain	43.9	54.3	73.3	72.1
Portugal	46.0	58.1	81.5	85.8

We should note that, while the exclusion of Greece and Portugal would involve some changes in the figures reported, it would in no way alter our substantive conclusions. From Table 10 it is clear that those above and below the deprivation threshold are sharply differentiated in terms of their manual non-manual composition. This variable also differentiates the income poor and non-poor but in a fashion that is much less

sharp. Furthermore, in most countries, such differentiation, is much sharper among those below the deprivation threshold than above.<sup>12</sup>

In Table 11 we show the composition in terms of percentage manual for the three category persistent poverty classification.<sup>13</sup> With one minor deviation in Italy, where no difference is observed between those poor in only one income wave and those poor in both, the relevant percentage increases in every country as one moves from those poor at neither time to those poor at both. The range for the former category is 32 to 50 per cent while for the latter it is 47 to 75 per cent and for the intermediate category 36 to 66 per cent. In Greece and Spain three out of four of the persistently poor are located in households where the reference person is a manual workers or smallholder. In the remaining countries, with the exception of Italy at least one in two of this group are in the manual class and in Ireland, the UK, Spain and the Netherlands this figure ranges between sixty and seventy per cent. However, despite the clarity of the pattern the persistently poor are still a somewhat less homogenous group than the consistently poor.

*Table 11: Composition in Terms of Percentage Manual of Persistent Poverty Classification (Figures refer to manual plus farmers for Greece and Portugal)*

	<i>Poor at neither time</i>	<i>Poor in 1993 or 1994</i>	<i>Poor at both times</i>
Germany	35.6	47.4	52.5
Denmark	38.8	43.0	52.3
Netherlands	32.0	50.0	62.2
Belgium	31.7	36.4	50.2
France	35.4	48.5	56.6
UK	36.2	53.5	64.5
Ireland	36.9	58.8	69.0
Italy	36.6	47.4	46.7
Greece	41.8	60.0?	74.8
Spain	46.3	61.4	63.1
Portugal	49.9	65.8	75.2

In Table 12 we shift to a risk perspective and report the results of a set of logistic regressions with the dependent variables being in turn the 60% median income-based, poverty line, persistent poverty at this line in 1993 and 1994 and consistent income and deprivation poverty.<sup>14</sup> The coefficients reported are the odds-ratios for being poor versus non-poor for the manual versus the non-manual class. The logits from which the estimates have been also included terms for self-employed with and without

employees and farmers and controlled for sex, age-group, separation or divorce and lone parenthood.<sup>15</sup> A clear trend emerges from Table 12 relating to the impact of manual-non-manual differentials across the different measures of poverty. The value of the coefficient for social class is consistently lowest for the measure based on median income in 1993. The values of the odds ratios range from 1.91 in Germany to 8.93 in Ireland. The lowest values are found in Germany, Denmark and Belgium where the range lies between 1.91 and 2.41. A cluster of countries comprising France, the UK and Italy follows them, which are found in the narrow band between 2.82 and 2.91. We then observe a significant increase to 4.38 for the Netherlands. A further rise occurs for Portugal, Spain and Greece who lie between 5.11 and 5.93. Finally, the Irish value is quite distinctive. A consistent trend towards an increased class effect is observed for the measure based on persistent income poverty. Where the range is between 2.12 for Germany and 9.69 for Ireland<sup>16</sup> The ordering of the countries changes very little although the Netherlands moves closer to the cluster of countries including the UK and France and the increase in the value of the ratio is exceptional for Greece bringing it close to the Irish value nearer.

*Table 12: Odds Ratio Measuring the Impact of Manual versus Non-Manual Social Class on Income Poverty, Persistent Poverty, Consistent Poverty and Consistent and Persistent Poverty at the 60% Line*

	<i>Income Poverty</i>		<i>Persistent</i>		<i>Consistent</i>		<i>Consistent and Persistent</i>	
Germany	1.91	***	2.12	***	5.50	***	7.09	***
Denmark	2.25	***	3.51	***	4.56	***	6.34	***
Netherlands	4.38	***	4.92	***	5.55	***	8.57	***
Belgium	2.41	***	3.40	***	2.92	***	3.68	***
France	2.82	***	3.73	***	3.87	***	4.08	***
UK	2.91	***	4.09	***	4.44	***	7.03	***
Ireland	8.93	***	9.69	***	16.00	***	12.09	***
Italy	2.91	***	3.54	***	4.35	***	4.03	***
Greece	5.93	***	9.21	***	8.04	***	9.99	***
Spain	5.42	***	5.45	***	6.45	***	8.23	***
Portugal	5.11	***	5.47	***	9.06	***	8.69	***

\* P< .05, \*\* P< .01, \*\*\* P< .001



A further strengthening of the class effect is found for the consistent measure with the range now lying between 2.92 for Belgium and 16.0 for Ireland. The exceptions to this trend are Belgium, the UK and Greece. The ordering of the countries takes on a somewhat different appearance at this point. After Belgium the lowest values are found in France, the UK and Italy who are now joined by the Denmark in a range of values running from 3.87 to 4.56. The Netherlands, Germany and Spain follow these with a range of values running from 5.50 and 6.45. In the former case this constitutes a significant change in its relative position in comparison with that observed for the income measures. Greece and Portugal are the countries, which come closest to Ireland with odds ratio values of 8.04 and 9.06. Finally if we employ a measure that requires that the conditions of persistence and consistency be fulfilled, we observe a further increase in the size of the class coefficient for eight of the eleven countries. Since Ireland is one of the countries that deviates from this trend we observe a narrowing of the range to between 3.68 and 12.09. Italy and Spain are the other exceptions.

It is clear that the conclusions relating to the impact of class will be influenced both by choice of measure and the particular country on which one focuses. In Table 12 the values of manual-non-manual from 1.91 for the 1993 median-income based measure in Germany to 16.0 for the consistent income-deprivation measure in Ireland. The German result is particularly interesting because Germany has been the most important source of the individualisation or democratisation of poverty argument. Relying on the point in time income measure would lead one to be persuaded by such arguments. However, this is the extreme case. In every other country the value is higher for this measure and in Germany substantially higher values are observed as one moves from the income measure to the persistent and consistent measure. A broad pattern of cross-national consistency in terms of relative position emerges. Ireland is quite exceptional in the strength of its class effect irrespective of the measure employed. In each case the cluster of European countries comprising Spain, Portugal and Greece follows it. For both of the income measures these are followed by Denmark and then by the cluster of countries containing France, the UK and Italy and finally by the group made up of Belgium, Denmark and Germany. The combined measure sees a shift in relative position for Denmark and Germany who are now

found between the Netherlands and the UK. The only shift for the persistent and consistent measure is that France moves closer to Belgium.

## **7. Conclusions**

In this paper we have attempted to contribute to the growing literature on the mismatch between poverty measures based on income and deprivation. In so doing we have drawn on suggestion in the earlier literature that such inconsistency might, in significant part be due to the failure of current income to capture longer term accumulation and erosion of resources. We further hypothesised that the ability of current income to do might vary systematically across countries with greater success being observed in the poorer countries where alternative resources play less of a role. In using the ECHP UDB data set for 1994 and 1995 we adopted an explicitly relative approach. For each country we constructed deprivation variables with thresholds corresponding to those for the 40%, 50% and 60% relative income lines. This procedure allowed us to examine the degree of consistency between income and deprivation measures in circumstances where the potential range ran from zero to one hundred per cent.

Our analysis showed that the extent of mismatch between the income and deprivation measures declined significantly as the income threshold was raised from 40% to 60%. This observation cannot be accounted for by the fact that significant numbers of those below the 40% income threshold lie just below the deprivation threshold. At the 40% line income and deprivation appear to be measuring quite different phenomenon. Neither are those below the 40% line experiencing distinctive levels of economic strain. The extent of mismatch at the lower lines means that an exploration of the value of combining income and deprivation information can realistically be achieved only at the 60% level. This is particularly true in the more affluent countries. Cross national differences in the degree of consistency ensure that cross-national variation in the consistent poverty measure at the 60% threshold is a good deal sharper than in case of the income measure. In addition to these measures we also constructed a persistent poverty measure at the 60% line which distinguished between those poor either in 1993 or 1994 and those poor on both occasions. Persistence was also found to be significantly higher the more generously the poverty threshold was defined. However, it bore no relationship to the level of poverty. Cross-national variation in

levels of consistency cannot therefore be accounted for by corresponding differences in poverty persistence and more likely to be related to other factors such as degree of welfare effort. In all countries there was a sharp contrast in deprivation terms between those poor at neither time and all others. With the exception of Denmark and Germany, the risk of being above the deprivation threshold was significantly higher for the persistently poor than for those poor in either 1993 or 1994 .

In order to develop further our understanding of different poverty measures we proceeded to examine their relationship to subjectively experienced economic strain. Both income poverty and being located above the deprivation threshold were found to be related to economic strain. However, the impact of the latter was significantly stronger. An examination of the joint impact of deprivation and persistent poverty showed that they combined in an interactive fashion to influence strain. Location above the deprivation threshold seems to be a sufficient condition in provoking economic strain. Below the threshold, with the exception of Denmark and Germany, the levels of strain are substantially higher among the persistently poor than among those poor on only one of the observations. These results are consistent with both current consumption levels and perceptions of future opportunities and difficulties having implications for economic well-being. More generally they suggest that information on income dynamics and deprivation may both be profitably employed to enhance our understanding of a range of social phenomena.

Our ability to do so, however, will be dependent on enhancing our understanding of the socio-demographic determinants of consistent and inconsistent poverty and persistent and transient poverty. As a prelude to such an analysis, in the final section of the paper we considered how the extent to which conclusions relating to the impact of the manual-non-manual divide on poverty was influenced by the choice of poverty line and whether this was subject to cross-national variation. This analysis was also motivated by the potential offered by the ECHP data set to contribute to the recent debate on the individualisation or democratisation of poverty. Our analysis showed that conclusions relating to the impact of social were significantly influenced by the choice of line. In terms of composition the manual-non-manual contrast is much sharper where deprivation is at issue than in the case of income poverty. However, within each level of deprivation further differentiation by income poverty is observed.

Similarly, manual-non-manual shifts gradually as one moves from those poor at neither time to those poor in either 1993 or 1994 and finally to those poor on both occasions. From a risk perspective, we also observe that generally the significance of social class increases as one moves from a point in time estimate of income poverty, to persistent income poverty and finally to consistent poverty.

However, while the choice of measure has considerable significance there is also substantial cross-national variation which is largely although not entirely independent, as a consequence conclusions relating to the democratisation of poverty are likely to be profoundly influenced by both choice of measure and the country observed. German observers are likely to come to rather different conclusions to those based in Ireland and Southern Europe even if they all employ income measures. Where the former employ such measures and the latter take into account deprivation, it is inevitable that will be led to profoundly different conclusions on the value of class analysis.<sup>17</sup> It therefore becomes of extreme importance that maximum advantage is taken of data sets such as the ECHP which permit us to explore the consequence of different conceptualisations of poverty in a genuinely comparative context.

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## Notes

<sup>1</sup> For a more detailed discussion see Nolan and Whelan (1996<sup>a</sup>:71-74)

<sup>2</sup> For the purposes of the present analysis we have excluded Luxembourg because it must frequently be treated as an exceptional case.

<sup>3</sup> . The level of measured income inequality can vary depending on the choice of equivalence scale (see e.g. Coulter, Cowell and Jenkins, 1992).

<sup>4</sup> Thus we avoid items where the issue of choice cannot be satisfactorily resolved and those, such as “having a second home”, where possession of the item is a relatively rare phenomenon in all of the countries covered.

<sup>5</sup> Since both consistency and, as we shall persistence, decline as one moves from the 60% to the 40% income line, conclusions relating to the extent of mismatch between different measures of poverty at the 60% line will hold *a fortiori* at the 40% and 50% lines.

<sup>6</sup> See the discussion in Leisering and Liebfried (1999: 65-68)

<sup>7</sup> Other analysis shows that while mobility between poverty categories does have a vertical element there is what is normally described in the social mobility literature as a disaffinity between the category containing those below the 40% income line and those?? (Layte *et al*, 2000).

<sup>8</sup> Once again we should note that economic strain does not vary substantially when we distinguish between those below the 40% line, those between the 40% to 50% lines and those between the 50-60% lines. This is yet another instance where those below the 60% income line are sharply differentiated from those above the line but further differentiation below the line cannot be observed.

<sup>9</sup> For an example of such an analysis applying multinomial logit analysis to Irish data see Nolan and Whelan (1996).

<sup>10</sup> Liebfried and Liesering (1998) are unusual in the poverty dynamics literature in that they are aware of related issues arising in the social mobility literature. However, their discussion of democratisation suffers from a failure to engage with a substantial literature relating to terns in the impact of social class. See Breen and Goldthorpe (1999, forthcoming), Marshall *et al* (1997)

<sup>11</sup> The class variable used is based on a collapsed version of the schema employed by Erikson and Goldthorpe (1992). Employees are divided manual (V,VI,VIIa,VIIb) and non-manual (I,II,II) occupations



using the ISCO (1988) classification where major groups 1 through 4 are taken to be manual. Both our inability to differentiate within the manual and non-manual groups and the level of aggregation of the ISCO information is likely to lead to an underestimation of class effects.

<sup>12</sup> Luxembourg and Ireland prove exceptions to this rule.

<sup>13</sup> No significant differentiation is observed between those poor only in 1993 and those poor only in 1994.

<sup>14</sup> Of course the numbers falling below these poverty thresholds varies being greatest for the income poverty line and least for the consistent poverty measure. However, the fact that there is no necessary relationship between the number poor and the degree of social structuring of poverty is shown by the case of the income poverty lines where exactly the opposite holds true.

<sup>15</sup> The age groups distinguished were < 24, 25-44, 45-64, 65 +

<sup>16</sup> Although in the case of Spain the difference is marginal.

<sup>17</sup> Compare Nolan and Whelan (1996a) and Leisering and Liebfried (1999).