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Dirven, H.J.; Fouarge, D.J.A.G.

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Henk-Jan Dirven & Didier Fouarge

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Income mobility and deprivation dynamics among the elderly in Belgium and the Netherlands

Henk-Jan Dirven, Didier Fouarge
WORC, Tilburg University, The Netherlands

Keywords: Income mobility, deprivation dynamics, elderly persons, (early) retirement

Abstract

This paper analyzes the dynamics of income and deprivation among the elderly in Belgium and the Netherlands between 1985 and 1988. It appears that, in 1985, the average level of deprivation in Belgium and the Netherlands was about the same. However, Belgium saw an increase between 1985 and 1988, while deprivation remained at a stable level in the Netherlands. In both countries, the difference in deprivation between the non-elderly and the elderly increased. However, while the elderly in the Netherlands were worse off than the non-elderly in 1988, the opposite situation was found in Belgium. At the level of individuals, the analysis of deprivation dynamics indicated that the majority of the elderly as well as the non-elderly population experienced substantial changes in deprivation status. Overall, living conditions turned out to be more stable in the Netherlands than in Belgium and, among the Dutch, more stable among the elderly than among the non-elderly. The income position of the elderly appeared to be comparable between the two countries. Regarding income mobility, income loss and, consequently, inflow into poverty were more likely among those retiring early than among those not retiring early. However, from an analysis of the relationship between income mobility and deprivation dynamics, it appeared that the living conditions of the elderly were not directly affected by changes in income. One explanation for this result may be ability to draw on savings to avoid deprivation, at least for some time.

1. Introduction

Growing concern on the topic of poverty and economic and social mobility has lead researchers to develop instruments to tackle this problem. Much empirical work has already been done on this issue. In this perspective, international comparisons add an extra dimension to the subject.

To study the achievements of social policy, subgroups in the population may be compared and/or trends may be analyzed for a given country. Additional information may be provided by international comparisons. The latter option makes it possible to put into perspective given patterns of poverty that may have been taken for granted within a country. Alternatively, international comparisons make it possible to reveal the differences in content and coverage of the minimum protection systems of countries.

This paper deals with the subject of income mobility and deprivation dynamics among the elderly in an international perspective. The situation of the elderly in Belgium and the Netherlands is analyzed from this point of view. Our attention is centred on the elderly population as it has been shown in previous research to be one of the most vulnerable population groups (Commission of the European Communities 1994: 119). This vulnerability is not only due to the fact that the elderly are excluded from labour market participation, but also because of major life events occurring during old age, such as the death of the partner, early retirement, the entrance into the system of old age benefits, etc. These events are expected to have major consequences for the income position and deprivation status of the elderly. Our contribution focuses on the effect of (early) retirement on the income position and deprivation status of the elderly in Belgium and the Netherlands.

In the following section, our research questions are formulated. Thereafter, the definitions of concepts, the methods and the data are discussed in Sections 3, 4 and 5, respectively. In Section 6, our results on the dynamics of income and deprivation among the elderly are commented. The impact of income mobility on deprivation is also investigated.

2. Hypotheses

Earlier research (Deleeck, Van den Bosch & De Lathouwer 1992) showed that the level of income in Belgium was about equal to that in the Netherlands. Bearing in mind that the replacement rate of pensions in Belgium and the Netherlands equals about 70% of the last earned wage (Petersen 1990),

we can expect the income position of the elderly to be comparable between the two countries. This is our first hypothesis. On the other hand, because the replacement rate is about the same in both countries, we do not expect income mobility due to (early) retirement to be very different in the two countries. This is our second hypothesis.

Besides these hypotheses concerning the similarities between Belgium and the Netherlands, we test a set of hypothesis concerning the effect of (early) retirement on household income and deprivation. We can expect (early) retirement to have a negative effect on the income position of the elderly as pension income is usually lower than labour income. Next, we expect the (direct) effect of early retirement on deprivation to be nil if the associated loss of income is taken into account. Due to the loss of income associated with (early) retirement, the elderly may be hampered in their social participation or in buying or replacing their consumer durables. Therefore, the impact of (early) retirement on deprivation is indirect (via income changes).

3. Concepts and definitions

3.1 Disposable household income

The income concept used here is that of real annual equivalent disposable household income. A comparable income measure was constructed based on those income components that were common to the 1985 and 1988 waves of the Belgian and Dutch socio-economic panels (i.e., labour income, public transfers and alimony). The drawback of a country-specific measure of income based on all the available income information would have been that cross-national differences in the dynamics of income could be the consequence of differences in the composition of the income measure. The equivalence scale used is the modified OECD-scale giving a weight of 1 to the first adult in the household, a weight of 0.5 to any other adults (i.e., household members aged 14 or more) and a weight of 0.3 to each child (i.e., household members aged below 14) (Hagenaars, De Vos & Zaidi 1993). In our tables, the absolute amounts of income are expressed in 1985 ECUs, after correction for purchasing power differentials.

Our computations showed that the household size elasticity of the subjective equivalence scale is about the same in Belgium and the Netherlands.¹ This suggests that economies of scales do not differ

¹ Household size elasticity equalled 0.34 and 0.46 for Belgium in 1985 and 1988, respectively. The corresponding figures for the Netherlands were 0.30 and 0.45.

significantly between the two countries and, therefore, justifies the use of the same equivalence scale. Note, however, that the household size elasticity of the subjective equivalence scale is lower than that suggested by the modified OECD-equivalence scale (see Hagenaars et al. 1993). Nevertheless, we decided to apply the OECD-equivalence scale because it is mostly used in poverty studies.

3.2 Income poverty

To determine the income poverty status of households, a statistical or relative income poverty line was used. It was set at 50% of the median equivalent disposable household income in the population.² This method has significant advantages for comparisons across countries, or over time for a particular country (Callan & Nolan 1994). It builds in relativity in a consistent manner across countries or over time, it is straightforward to apply, the data required are limited and the interpretation of the results is transparent compared with other methods.

The method, however, has some drawbacks as well. First of all, it reduces the notion of income poverty to an issue of income inequality, since the income poverty rate is determined by the shape of the income distribution. Secondly, 50% of the median is, of course, an arbitrary criterion. Finally, because the modified OECD-equivalence scale is steeper than the subjective equivalence scales, we underestimate somewhat the level of the poverty line and therefore also the incidence of poverty.

3.3 Deprivation

In this paper, deprivation is defined in terms of the actual living conditions of households. To determine deprivation empirically, the Subjective Deprivation Scale (SDS) proposed by Muffels (1993) was used. As opposed to definitions of income poverty, which define poverty in terms of inputs or resources, the deprivation method allows for a direct evaluation of poverty in terms of outcomes.

The point of departure of the SDS is a list of items or consumption events included in questionnaires of the Belgian and Dutch socio-economic panels. For each item, household heads were asked whether they found it definitely necessary to have (or do) it and whether they actually had (or did) it themselves. Not having (or doing) an item adds to the household's level of deprivation, while it

²The income poverty line as defined here is actually a slightly modified version of the poverty line used by O'Higgins & Jenkins (1990).

is decreased by having (or doing) the item. In fact, the SDS is a weighted sum of the total number of items the household lacks *minus* the total number of items the household does not lack. The weights are determined by the possession of the item in the reference group of the household head, reflecting the assumption that the dis-utility of not having (or doing) an item is higher, if more people in the reference group have (or do) the item. Moreover, the weights depend on the necessity as perceived by the reference group, because the utility derived from the possession of an item is assumed to be higher, if more people in the reference group consider it to be a necessity. Since people's living conditions are defined relative to those in their reference group, the SDS may also be called inter-subjective.

One advantage of the SDS is that it takes account of the fact that the relevance of indicators for the measurement of deprivation may change over time and/or may differ between countries. Also, the SDS provides an answer to the question, raised by Kangas and Ritakallio (1995), how to deal with those who appear to be cumulatively deprived, yet own items, such as a car, that require large outlays of money. Due to the compensatory nature of the scale, the utility derived from having such items is subtracted from the dis-utility caused by not having or doing other items.

Muffels (1993) describes how the SDS can be transformed into a Subjective Deprivation Poverty Line (SDL) by means of the Life Resources Evaluation Question (LREQ):

"If you consider the way your household lives at the moment, would you call your household poor, or in fact rich, or somewhere in between? You can answer by giving a score to your situation. A score of 1 means that you consider yourself to be very poor; a score of 10 means that you consider yourself to be very rich."

The answers to the LREQ are introduced as an explanatory variable in a regression model and hypothesized to depend on the following predictors: The SDS, equivalent disposable household income, the age of the head, the household type, a set of factors reflecting financial stress (i.e., feelings about the current financial situation and financial prospects of the household) and characteristics of the reference group of the household. After estimating the regression model, it can be reformulated in order to derive the level of the SDL corresponding to a specific score on the LREQ, for example 5, 5½ or 6.

Although the LREQ was not included in the questionnaires of the Belgian socio-economic panel, it would have been possible, in principle, to compute an SDL for Belgium. If it is assumed that the relationship between predictors and the SDL is the same in Belgium and the Netherlands, the value of the SDL for Belgium could be approximated using estimates from the Dutch data. Since this assumption needs further investigation, no SDL was calculated for Belgium and the analyses were restricted to the SDS.

3.4 (Early) retirement

One of the aims of this paper is to make an assessment of the impact of entering the system of (early) retirement benefits on the dynamics of income and deprivation. To determine early retirement, a selection was made of elderly persons below the legal retirement age in 1988 as well as all persons having a spouse below that age. It was assumed that early retirement occurred if a person (or the spouse, if present) did not receive a pension in 1985, while (s)he did receive such a benefit in 1988. Since, for Belgium, no distinction could be made between retirement pensions and survivors' pensions, widow(er)s were excluded from the analysis of the Belgian data. It appeared that, in Belgium as well as the Netherlands, about one third of those falling within the required age limits retired early between 1985 and 1988.

To determine the impact of entering the system of retirement benefits, a selection was made of all elderly persons below the legal retirement age in 1985 and above that age in 1988 as well as those persons having a spouse within those age limits. It was then assumed that entry into the system of legal retirement benefits occurred, if a person (or the spouse, if present) did not receive a pension in 1985, while (s)he did receive such a benefit in 1988. Again, widow(er)s were excluded from the analysis of the Belgian data. Whereas, in the Netherlands, almost 100% of those reaching retirement age entered the system of old age benefits, the corresponding figure for Belgium was much lower. In Belgium, the majority of those not entering the system of legal retirement benefits consisted of persons who were gainfully employed in 1988 (or their spouses were) and housewives reaching retirement age, while their husbands received an early retirement benefit.

4. Methods

Five indicators are used to analyze the income position and income poverty status of the elderly. The first indicator is median income, which is the level of income reached by 50% of the population. The second indicator is the coefficient of variation of the income distribution (i.e., the standard deviation

of the distribution divided by its mean), which is an indicator of income inequality. The other three indicators refer to the situation of the poor: The percentage of poor individuals (i.e., the head-count ratio), the median income shortfall of the poor as a proportion of the income poverty line (i.e., the income poverty gap ratio) and the coefficient of variation of the income distribution of the income poor.

Since income protection, i.e., minimum protection or income maintenance (or both), is one of the major goals of systems of social protection, downward income mobility should be considered more relevant for the purpose of comparing systems of social protection than upward income mobility. Therefore, the focus of this paper is on downward income mobility, or income loss, and its relationship with the coverage by social protection of a specific risk (i.e., ageing). Similar to the static analysis of income poverty in terms of various indices, such as the head-count ratio, the income poverty gap ratio and the distribution of income among the poor, a distinction is made here between the proportion of people experiencing downward income mobility, the median income loss and the inequality of income losses.

Moreover, these aspects of downward income mobility are analyzed from various perspectives on the dynamics of income. Following Fritzel (1990), a distinction is made between absolute, relative and positional perspectives. According to the absolute perspective, changes in the welfare of individuals are associated with absolute changes in income, i.e., irrespective of income levels in the past and the rest of society. Although the relative perspective does not ignore the impact of absolute changes, it is assumed that these are dependent upon previous income levels. A similar absolute change in income may have a different influence on the welfare experienced by a low-income household compared to a high-income household. In the positional view, to conclude, income changes are put against the background of changes experienced by other people in society. It is assumed that changes in the relative position within the income distribution have an impact on welfare independent of the size of both absolute and relative changes in income as is the case with positional goods (Hirsch 1976). The value of positional goods is dependent on the extensiveness of their use (e.g., education, tourism). According to Hirsch (*ibid.*), it makes a difference if others earn more than you, even if you are interested in your own consumption possibilities. In the same vein, it can be argued that it makes a difference if others gain more (or lose less) income than you.

The income mobility measures in this paper are defined in the following way. The absolute measure is based on the absolute difference in equivalent disposable household income between 1985 and

1988. The relative measure equals the absolute change in equivalent disposable household income between 1985 and 1988 as a proportion of equivalent disposable household income in 1985. Since the application of relative measures of income dynamics to negative incomes has the undesirable effect of producing values with the wrong sign,³ these are excluded from the analysis of relative income mobility. In order to analyze positional income change, each person is ranked according to his or her equivalent disposable household income. Income mobility from a positional perspective is then defined as the absolute change of rank within the income distribution between 1985 and 1988 as a proportion of the largest possible change of rank (i.e., the number of observations minus 1). Inflow into income poverty, to conclude, is defined in terms of the proportion of non-poor people in 1985 crossing the income poverty line between 1985 and 1988.

While a situation in which few people lose income is to be preferred to a situation in which many people experience income losses and while it is preferable that these income losses be small rather than large, one can not make a similar claim about the inequality of income losses. Because we don't look at who loses income (whether it is a rich or a poor person), we cannot say whether it is desirable or not that the absolute or positional income losses be unequally or equally distributed. Results for these cases will therefore not be presented in our tables. As far as relative income losses are concerned, from a redistributive point of view, some might wish that the rich lose relatively more income than the poor. But again, because we don't look who from the rich or the poor lose income, we can only say that if people are to lose income, it is more just if they lose in proportion to what they have. At least, it is less unjust than if everybody, rich or poor, were to lose an equal absolute amount of income. Equally distributed relative income losses therefore appear to be more fair than unequally distributed relative income losses. However, when looking at who from the rich or poor lose income, some might prefer another situation.

5. Data

The analysis of income mobility and the dynamics of deprivation requires longitudinal data. For this paper, household panel data covering a representative sample from the Belgian and Dutch populations were used: The 1985 and 1988 waves of the Belgian and Dutch socio-economic panel surveys. The data for Belgium were collected by the Centre for Social Policy in Antwerp. The first

³ An increase in income from a negative to a positive value produces a negative sign, while a decrease from a positive to a negative value produces a positive sign.

wave was held in 1985 and covered 18,324 individuals. The second wave, held in 1988, covered 10,757 individuals. 10,250 individuals participated in both waves. The data for the Netherlands were collected in October 1985 and October 1988 by the Netherlands Central Bureau of Statistics. The 1985 wave covered 11,432 individuals, while 13,770 individuals were covered by the 1988 wave. The increase in the sample size between 1985 and 1988 is caused by additional sampling. 8,711 individuals took part in both waves.

The unit of analysis in this paper is the individual. To take account of the relation between the household and the individual (individuals live in households), household characteristics, such as household income, income poverty status and deprivation, are assigned to every individual in the household. If, for example, household income falls below the income poverty line, it is assumed that all members of the household are poor. It also means that no attention is paid here to the distribution of resources within the household.

Cross-sectional weights were used to obtain results which are representative for the total population at the time of interview. For the analysis of dynamics, the data were weighted by longitudinal weights to correct for selective attrition. The panel data can be considered representative for that part of the population, that did not decease or emigrate between 1985 and 1988.

6. Results

6.1 The dynamics of deprivation among the elderly

Table 1 displays the items used to determine the level of deprivation of households. The items were based on a much longer list proposed by Townsend (1987) and fall under the headings of housing deprivation, deprivation of home facilities, dietary deprivation and recreational deprivation. The table gives figures on the level of deprivation per item, where deprivation is defined as not having (or doing) an item for financial reasons while it is considered necessary as well as the average value on the SDS by age group. With the exception of a week's annual holiday away from home, the level of deprivation is below 4%. Moreover, age- and cross-national differences appear to be rather small. The summary picture provided by the SDS shows that the average level of deprivation in the two countries was about the same in 1985. However, between 1985 and 1988, Belgium saw an increase in deprivation, while it remained at a stable level in the Netherlands. In both countries, the difference in deprivation between the non-elderly (i.e., persons below 55 years of age) and the elderly (i.e.,

persons aged 55 or over) increased. However, while the elderly in the Netherlands were worse off than the non-elderly in 1988, the opposite situation was found in Belgium.

Table 1: Deprivation in Belgium and the Netherlands by age group, 1985-1988

Item	Belgium				The Netherlands			
	1985		1988		1985		1988	
	< 55	• 55	< 55	• 55	< 55	• 55	< 55	• 55
Telephone	2.0	2.9	1.6	2.1	2.2	1.1	0.8	0.7
Separate bedrooms for children over ten of different sexes	2.7	1.4	3.4	1.4	1.8	1.0	1.3	0.7
Refrigerator	0.8	1.3	0.7	0.3	0.1	0.0	0.3	0.2
Damp-free dwelling	3.3	2.7	3.8	2.1	2.6	1.5	1.5	1.3
Exclusive use of indoor WC	1.0	1.8	0.4	0.5	0.3	0.1	0.3	0.3
A meal with meat, poultry or fish every two days	0.6	0.9	0.8	0.4	1.8	1.9	0.9	1.1
Washing machine	1.7	1.9	1.1	1.7	2.2	0.9	1.4	0.7
Car	1.5	1.5	2.3	2.1	2.3	3.3	2.1	1.8
A week's annual holiday away from home	10.5	9.1	11.0	8.2	12.3	14.7	8.6	11.5
Leisure equipment for the children	1.5	1.4	2.1	2.0	4.0	3.3	2.5	2.3
Average level of deprivation (SDS)	-0.052	-0.049	-0.023	-0.043	-0.064	-0.015	-0.074	0.003
	-0.051		-0.028		-0.054		-0.057	

To analyze the dynamics of deprivation, individuals were ranked according to their household's score on the Subjective Deprivation Scale and grouped into quintiles (i.e., 20%-groups) with the highest quintile reflecting the highest level of deprivation. This was done separately for Belgium and the Netherlands. Thereupon, a person's quintile position in 1985 was cross-classified with the same person's quintile position in 1988 and outflow percentages were calculated. These are presented for the non-elderly and the elderly in Tables 2 and 3, respectively.

Among the non-elderly, a rather similar pattern is observed in Belgium and the Netherlands. Irrespective of the quintile position in 1985, mobility to an other quintile is more likely than immobility. In both countries, about one-third of the non-elderly did not leave their quintile, about one-third moved to a higher quintile and one-third moved to a lower quintile. Nevertheless, the proportion of people staying within the same quintile was always higher than any of the transitions in an upward or downward direction. This tendency is more pronounced in the lowest and highest quintiles than in the middle quintiles. Finally, it appeared that the probability of moving to an other quintile decreased with the distance towards that quintile.

Table 2: The dynamics of deprivation among the non-elderly in Belgium and the Netherlands using Muffels' (1993) Subjective Deprivation Scale (SDS) based on 10 items, 1985-1988

Quintile position on the SDS		Belgium (n = 6,965)						The Netherlands (n = 8,352)					
		1988						1988					
		1st	2nd	3rd	4th	5th		1st	2nd	3rd	4th	5th	
1985	1st	34.0	21.8	18.6	14.5	11.1	18.4	38.1	21.8	19.2	13.2	7.8	20.4
	2nd	18.3	34.6	23.2	14.5	9.5	22.3	19.9	35.3	27.3	8.9	8.5	21.4
	3rd	13.4	21.3	27.1	22.3	15.9	20.6	12.2	26.1	27.4	19.8	14.5	19.0
	4th	16.1	17.1	19.4	26.3	21.1	20.0	20.3	16.4	16.1	26.8	20.4	18.8
	5th	9.5	12.0	12.6	24.1	41.9	18.7	8.8	11.6	10.8	22.7	46.1	20.3
		18.1	21.8	20.4	20.2	19.5	100%	20.0	22.4	20.2	18.0	19.4	100%

Among the elderly, a number of deviations from this pattern can be observed, especially in the Netherlands. First of all, mobility from the second to the first or the third quintile (and, in the Netherlands, even to the fourth quintile) was more likely than staying within the second quintile. Apparently, this is a rather volatile position among the elderly. Secondly, the regularity found among the non-elderly, i.e., that the probability of moving decreases with the distance towards the destination, was violated among the elderly in a number of instances (particularly in the Netherlands). This especially concerned moves to and from the first quintile (i.e., the lowest level of deprivation). Finally, the proportion of elderly people staying within the same quintile appears to be substantially higher in the Netherlands (about 42%) than in Belgium (about 34%), while the proportion of people moving to a lower quintile (i.e., an improvement of one's living conditions) was smaller in the Netherlands (about 24% against about 35% in Belgium).⁴

⁴ Grouping individuals into quintiles may hide substantial changes taking place within quintiles. However, the conclusions on differences between Belgium and the Netherlands and between the non-elderly and the elderly do not change, if these are taken into account. While in Belgium, about 50% of the non-elderly as well as the elderly experienced a decrease in rank (i.e., an improvement of their living conditions), the corresponding figures for the Netherlands were 48% and 42% among the non-elderly and the elderly, respectively.

Table 3: The dynamics of deprivation among the elderly in Belgium and the Netherlands using Muffels' (1993) Subjective Deprivation Scale (SDS) based on 10 items, 1985-1988

Quintile position on the SDS		Belgium (n = 1,787)						The Netherlands (n = 1,842)					
		1988						1988					
		1st	2nd	3rd	4th	5th		1st	2nd	3rd	4th	5th	
1985	1st	44.4	18.0	17.3	12.4	7.9	23.9	46.4	16.0	8.2	14.6	14.8	18.1
	2nd	27.3	23.5	24.4	15.4	9.4	15.1	26.1	18.6	25.5	18.8	11.0	13.6
	3rd	23.0	16.5	28.9	17.1	14.4	19.1	11.8	3.4	40.8	30.6	13.4	24.4
	4th	15.0	16.1	22.5	23.6	22.7	20.2	16.4	5.5	9.4	45.1	23.6	25.3
	5th	12.2	12.2	11.3	21.0	43.3	21.7	6.5	6.2	10.4	26.2	50.8	18.6
		24.8	16.9	20.3	17.9	20.0	100%	20.2	8.8	19.2	28.9	22.9	100%

The observed patterns were confirmed by the results of a log-multiplicative full interaction model proposed by Xie (1992). This model specifies a single parameter for each combination of quintile positions. An equality restriction was imposed on the parameters for non-elderly and elderly Belgians, while the parameters for the Netherlands were allowed to vary by a single factor.⁵ The parameter estimates showed a saddle-shaped mobility pattern,⁶ indicating that large changes in living conditions were less likely than small changes, while no change was more likely for the non-deprived and the severely deprived than for those taking an intermediate position. Mobility from the fourth into the first quintile, however, turned out to be somewhat more likely than expected on the basis of this pattern.

The observed mobility pattern turned out to be more pronounced for the Netherlands than for Belgium and, within the Netherlands, to be most pronounced among the elderly. The (additive) log-linear association parameters for the non-elderly and elderly Dutch were 1.21 and 1.44 those of the Belgians, respectively. Apparently, living conditions are more stable in the Netherlands than in Belgium and, among the Dutch, more stable among the elderly than among the non-elderly. These

⁵ The model was fitted with IEM (Vermunt 1993) together with a range of other log-linear and log-multiplicative models for transition tables. The preferred model had an L^2 of 181 with 46 degrees of freedom and was selected because it had the lowest value of the Bayesian Information Coefficient (BIC = -272; Raftery 1986).

⁶ For Belgium, the (additive) log-linear parameter estimates for the association between quintile positions on the SDS in 1985 and 1988 were 0.69, 0.10, -0.06, -0.27, -0.46, 0.14, 0.49, 0.26, -0.38, -0.51, -0.29, 0.04, 0.33, 0.06, -0.15, -0.04, -0.25, -0.17, 0.30, 0.16, -0.50, -0.39, -0.37, 0.28 and 0.96 (reading from the upper left-hand corner to the lower right-hand corner of the transition table).

results are reflected also by the median level of absolute change in rank as a proportion of the maximum possible level of change. In the Netherlands, the median was 16.0% (16.5% among the non-elderly and 13.8% among the elderly), while it appeared to be 19.9% in Belgium (18.8% among the non-elderly and 19.0% among the elderly).

6.2 *The impact of (early) retirement on the dynamics of deprivation*

Clearly, the results in Section 6.1 indicate that changes in living conditions are widespread even among the elderly. Many factors may be hypothesized to have an impact on such changes, e.g., changes in equivalent disposable household income, labour market status, family composition, etc. In this section, an assessment is made of the impact of a major life event which is specific for the elderly, i.e., (early) retirement. Usually, this event implies a substantial change in income and may thus have an impact on people's living conditions.

Table 4: The impact of early retirement on the dynamics of deprivation using the Subjective Deprivation Scale, 1985-1988

	Belgium		The Netherlands	
	Early retirement (n = 160)	No early retirement (n = 361)	Early retirement (n = 230)	No early retirement (n = 470)
Positional change (%)				
- median	3.6	3.0	6.7	4.4
- mean	1.6	4.3	5.4	3.6
Worsening of living conditions:				
- percentage	56.5	56.0	63.4	56.7
- median change (%)	16.2	16.9	15.3	12.5
- mean change (%)	21.1	24.8	20.9	20.3

Table 4 presents figures on the impact of early retirement on the dynamics of deprivation in Belgium and the Netherlands. The dynamics of deprivation were defined in terms of positional changes, i.e., the absolute change of rank on the SDS between 1985 and 1988 as a proportion of the largest possible change of rank (i.e., the number of observations minus 1). A positive changes thus implies a worsening of living conditions.

In Belgium, early retirement implied a median increase in rank on the SDS (i.e., a worsening of living conditions) of 3.6% against 3.0% for those not experiencing this event. In the Netherlands, the corresponding figures were 6.7% and 4.4%. While the mean level of change was in the same direction in the Netherlands, this was not the case in Belgium. In the latter country, about the same proportion of those retiring early and those not retiring early experienced a worsening of living

conditions, whereas this was observed more frequently among the early retired compared to those who did not retire early in the Netherlands. Considering the median change in rank on the SDS for those experiencing a worsening of living conditions, the data suggest that the impact of early retirement is more pronounced in the Netherlands. On the other hand, the mean level of change suggests otherwise. However, none of the results appeared to be statistically significant at the 10% level.

Table 5: The impact of retirement on the dynamics of deprivation, 1985-1988

	Belgium		The Netherlands	
	Retirement (n = 141)	No retirement (n = 64)	Retirement (n = 386)	No retirement (n = 11)
Positional change (%)				
- median	-7.4	-11.8	0.3	-
- mean	-5.0	-11.3	1.4	-
Worsening of living conditions:				
- percentage	43.3	32.4	50.8	-
- median change (%)	13.3	12.0	13.9	-
- mean change	19.6	24.6	21.2	-

The analysis of the impact of retirement (Table 5) was hampered by the low number of Dutch elderly persons reaching the legal retirement age without receiving an old age benefit. Nevertheless, a small median as well as mean increase in rank on the SDS could be observed among those entering the system of old age benefits. About 51% experienced a worsening of their living conditions with a median change of rank of about 14% and a mean change of about 21%. In Belgium, living conditions improved less strongly among those retiring compared to those who did not. Moreover, the proportion experiencing a worsening of living conditions turned out to be higher among the retired. The median and mean level of change among those experiencing a worsening of living conditions were not substantially higher among the retired, however. Again, none of the observed differences were statistically significant at the 10% level.

The observed lack of impact of (early) retirement on the dynamics of deprivation may be caused by a suppressor variable. If characteristic A has a negative impact on a worsening of living conditions and people experiencing (early) retirement have more of A than people not experiencing such an event, (early) retirement is (spuriously) associated with an improvement of living conditions due to A. This may have suppressed the hypothesized direct impact of (early) retirement on a worsening of living conditions in Tables 4 and 5. In Section 6.5, therefore, it is assessed to what extent the

hypothesized impact of (early) retirement is suppressed by the individual's initial level of deprivation since it may be assumed that the level of deprivation has an effect on the dynamics of deprivation (i.e., state dependence). For example, individuals with high initial levels of deprivation may be motivated to engage in activities that reduce their level of deprivation objectively (i.e., doing or acquiring more items) and/or subjectively (i.e., considering fewer items to be necessary).

6.3 The impact of (early) retirement on the dynamics of income

6.3.1 Income position and poverty status

Table 6 gives results on the income position and poverty status of the elderly compared to the rest of the population, which is used as a reference, for Belgium and the Netherlands in 1985 and 1988.

Using the country-specific definition of income, we see that, in Belgium, median income of the elderly was lower than median income of the rest of the population in both 1985 and 1988. On the other hand, in 1985, median income of the Dutch elderly was higher than median income of the rest of the population (about 3% higher), but due to the fall of income among the elderly and the rise of income in the rest of the population, the situation has reversed in 1988, with median income among the Dutch elderly being lower than in the rest of the population.

Income inequality among Belgian elderly is higher than in the rest of the population. For both groups it increased between 1985 and 1988, but more strongly among the elderly than in the rest of the population. Also in the Netherlands, income inequality among the elderly was higher than in the rest of the population in both 1985 and 1988. However, the loss of income of the Dutch elderly, between 1985 and 1988, was accompanied by a decrease in inequality, while the rise of income in the rest of the population was associated with an increase in inequality.

Table 6: The income position and poverty status of the elderly and the rest of the population in Belgium and the Netherlands, 1985 and 1988

	Belgium		The Netherlands	
	1985 (n=18,324)	1988 (n=11,139)	1985 (n=11,432)	1988 (n=13,772)
Income position (median)				
- elderly				
country-specific	9,371	9,634	9,021	8,762
common definition	8,001	8,163	8,198	7,924
- rest of the population				
country-specific	10,029	10,469	8,764	9,851
common definition	9,019	9,448	7,846	8,851
Income inequality (coefficient of variation)				
- elderly				
country-specific	0.462	0.553	0.828	0.597
common definition	0.465	0.580	0.648	0.609
- rest of the population				
country-specific	0.444	0.463	0.530	0.547
common definition	0.445	0.465	0.586	0.549
Head-count ratio				
- elderly				
country-specific	0.052	0.068	0.016	0.049
common definition	0.066	0.074	0.012	0.037
- rest of the population				
country-specific	0.052	0.059	0.021	0.040
common definition	0.040	0.042	0.014	0.031
Poverty gap ratio (median)				
- elderly				
country-specific	0.133	0.143	0.518	0.284
common definition	0.146	0.212	0.681	0.255
- rest of the population				
country-specific	0.135	0.153	0.450	0.404
common definition	0.148	0.156	0.394	0.396
Income inequality among the poor (coefficient of variation)				
- elderly				
country-specific	0.250	0.414	1.672	3.454
common definition	0.274	0.510	1.318	1.348
- rest of the population				
country-specific	0.387	0.317	2.347	2.119
common definition	0.464	0.395	1.093	2.033
Comment:				
1.	country-specific = country specific income definition			
2.	common definition = income definition for the comparison of Belgium and the Netherlands			

The poverty rate among Belgian elderly persons increased between 1985 and 1988, more strongly even than in the rest of the population. In 1988, poverty among the elderly was higher than in the rest of the population. In the Netherlands, the 1985 poverty rate of the elderly was lower than that

of the rest of the population, but the situation reversed in 1988. The poverty rate of both groups increased during the 1985-1988 period.

The median poverty gap ratio in Belgium is somewhat lower for the elderly than for the rest of the population. In both groups, it increased between 1985 and 1988. In the Netherlands, the poverty gap ratio decreased between 1985 and 1988. The decrease of the poverty gap ratio was much sharper among the elderly so that, in 1988, it was lower in this group than in the rest of the population.

Income inequality among poor Belgian and Dutch elderly persons increased between 1985 and 1988. While, in 1985, it was lower among the elderly than in the rest of the population, the reverse holds in 1988.

Summarizing the results, we can state that, while median income of the elderly and the rest of the population increased between 1985 and 1988 in Belgium, overall inequality increased as well, as did the poverty rate and the income shortfall of the poor. For the elderly, the evolution of income was also accompanied by an increase of inequality of the income distribution among the poor. In the Netherlands, median income of the elderly decreased, while that of the rest of the population increased. Moreover, overall income inequality among the elderly decreased, whereas it increased in the rest of the population. In both groups, the percentage of poor increased, but the income shortfall decreased. Income inequality among the poor elderly Dutch increased, while it decreased in the rest of the population.

Median income of the Dutch elderly is somewhat higher than among Belgian elderly in 1985, but somewhat lower in 1988. The differences in median level of income are rather small, however. In both 1985 and 1988, inequality among the elderly was lower in Belgium than in the Netherlands. The percentage poor elderly was also lower in the Netherlands than in Belgium, but the income shortfall as well as the inequality of the income distribution of poor elderly was higher in the Netherlands than in Belgium.

6.3.2 The dynamics of income and poverty

In Table 7, the percentage of downwardly mobile persons (i.e, the head-count ratio), the median income loss of these persons and the inequality of their relative income losses are computed for each of the three perspectives on income mobility. The bottom row of the table also displays the rate of inflow into poverty.

Table 7: Downward income mobility and poverty dynamics among the elderly in Belgium and the Netherlands, 1985-1988

	Belgium (n=2,192)			The Netherlands (n=2,181)		
	Abs.	Rel.	Pos.	Abs.	Rel.	Pos.
Head-count						
- country-specific	0.509		0.563	0.477		0.660
- common definition	0.535		0.590	0.474		0.668
Median income loss						
- country-specific	1,856	0.175	0.134	1,946	0.165	0.134
- common definition	1,319	0.151	0.119	1,377	0.142	0.118
Inequality of income losses (coefficient of variation)						
- country-specific	-	0.853	-	-	1.004	-
- common definition	-	0.930	-	-	1.075	-
Inflow into poverty						
- country-specific	0.053			0.021		
- common definition	0.059			0.013		
- = not computed						

Irrespective of the income definition used, we see from Table 7 that more than half of the Belgian elderly were downwardly mobile in the 1985-1988 period, whatever the perspective on income mobility. This is more than in the Netherlands according to the absolute and relative perspective but less according to the positional perspective.

When assessing median income loss, one notices the impact of the income definition used. The magnitude of change varies considerably depending on whether the country-specific definition or the comparable definition of income is used. Comparing Belgium and the Netherlands, we conclude that, in absolute terms, median income loss among Belgian elderly is somewhat lower than among Dutch elderly, while in relative terms the opposite holds. Median positional income loss is about the same in the two countries. Whereas lower levels of inequality of relative income losses are found for Belgium, inflow into poverty is more substantial.

On the whole, we must establish that the conclusions to be drawn from Table 7 depend on the chosen indicator and perspective.

6.3.3 The impact of early retirement

This section gives a description of the impact of early retirement on the income position and poverty status of the elderly in Belgium and the Netherlands. The results are displayed in Tables 8.a and 8.b for Belgium and the Netherlands, respectively. First of all, a number of country-specific conclusions are drawn. Secondly, based on the comparable income definition, a comparison is made of the two countries.

In Belgium (Table 8.a), early retirement is associated with higher downward income mobility rates. In terms of absolute, relative as well as positional income change, about two thirds of those retiring early between 1985 and 1988 suffered from downward income mobility against less than half of those who did not retire early. On the other hand, the median value of absolute as well as relative income losses appeared to be lower in the case of early retirement. However, positional income losses as well as the inequality of relative income losses were somewhat higher. Inflow into poverty, to conclude, was somewhat higher for those retiring early. One general conclusion to be drawn for Belgium is, therefore, that the position of persons retiring early appears to be rather unfavourable in positional terms compared to those not retiring early: Both the incidence of downward positional mobility and its median level are higher. With respect to absolute and relative change, no conclusion can be drawn which holds across all indicators.

Table 8.a: The impact of early retirement on the income position and poverty status of the elderly in Belgium, 1985-1988

Early retirement	Absolute		Relative		Positional	
	Yes (n=165)	No (n=367)	Yes (n=165)	No (n=367)	Yes (n=165)	No (n=367)
Head-count			cf. absolute perspective			
- country-specific	0.635	0.437			0.666	0.456
- common definition	0.672	0.427			0.691	0.458
Median income loss						
- country-specific	1,931	2,901	0.173	0.194	0.147	0.139
- common definition	2,171	2,237	0.199	0.190	0.171	0.123
Inequality of income losses						
- country-specific	-	-	0.833	0.742	-	-
- common definition	-	-	0.795	0.790	-	-
Inflow into poverty			- = not computed			
- country-specific	0.038	0.025				
- common definition	0.060	0.035				

The results for the Netherlands (Table 8.b) appear to hold irrespective of the chosen perspective on income dynamics. While the early retired are more frequently downwardly mobile and suffer from larger income losses, the distribution of these losses is more equal. Transitions into poverty appear to be somewhat more common among those who retire early.

Table 8.b: The impact of early retirement on the income position and poverty status of the elderly in the Netherlands, 1985-1988

Early retirement	Absolute		Relative		Positional	
	Yes (n=175)	No (n=353)	Yes (n=175)	No (n=353)	Yes (n=175)	No (n=353)
Head-count			cf. absolute perspective			
- country-specific	0.511	0.368			0.725	0.545
- common definition	0.452	0.361			0.601	0.560
Median income loss						
- country-specific	1,817	1,608	0.186	0.123	0.200	0.134
- common definition	1,153	1,081	0.104	0.108	0.156	0.116
Inequality of income losses						
- country-specific	-	-	0.782	1.261	-	-
- common definition	-	-	1.123	1.234	-	-
Inflow into poverty			- = not computed			
- country-specific	0.039	0.029				
- common definition	0.028	0.007				

Summarizing the results across countries, two general conclusions about the impact of early retirement may thus be drawn. First of all, the general tendency is that the early retired experience income losses more often than those who do not retire early. Secondly, the data indicate that the early retired have higher risks of becoming poor. Thirdly, those retiring early are worse off, in positional terms than those not retiring early.

Conclusions about the differences between the two countries may be drawn on the basis of the comparable income definitions. However, no general conclusion can be drawn which holds across indicators and perspectives. On all indicators, except inequality of relative income losses, Belgium shows higher values than the Netherlands. The number of people undergoing income losses while retiring early, as well as the amount of income lost, is higher in Belgium than in the Netherlands. On the other hand, the inequality of the relative income losses appears to be higher in the Netherlands than in Belgium. Inflow into poverty is also higher in Belgium than in the Netherlands for those retiring early as well as for those who do not.

6.3.4 The impact of entrance into the system of old age benefits

The results displayed in Tables 9.a and 9.b for Belgium and the Netherlands, respectively, show the impact of retirement on the income position of the elderly. First, Belgium is discussed separately, based on the country-specific income definition. For the Netherlands, no comparison could be made between those entering the system of old age benefits and those not entering the system, since the number of cases in the latter group appeared to be too small. Secondly, a comparison is made of the two countries, based on the comparable income definition.

In Belgium, the relationship between entrance into the system of old age benefits and the incidence and level of downward income mobility appears to depend on the chosen perspective on income dynamics. Downward mobility is less common among the retired in absolute and relative terms, but about equally common in positional terms. While the median absolute and positional income loss is smaller among the retired, the relative income loss is larger. The distribution of relative income losses is more equal among the retired. Transitions into poverty appear not to have a significant relationship with entrance into the system of old age benefits.

Table 9.a: The impact of entrance into the system of old age benefits on the income position and poverty status of the elderly in Belgium, 1985-1988

	Absolute		Relative		Positional	
	Yes (n=136)	No (n=66)	Yes (n=136)	No (n=66)	Yes (n=136)	No (n=66)
Entrance into the system of old age benefits						
Head-count			cf. absolute perspective			
- country-specific	0.472	0.512			0.547	0.540
- common definition	0.491	0.550			0.544	0.550
Median income loss						
- country-specific	3,183	3,332	0.310	0.212	0.171	0.189
- common definition	2,160	2,183	0.194	0.190	0.148	0.226
Inequality of income losses						
- country-specific	-	-	0.762	0.893	-	-
- common definition	-	-	0.869	0.869	-	-
Inflow into poverty			- = not computed			
- country-specific	0.059	0.062				
- common definition	0.042	0.089				

Table 9.b: The impact of entrance into the system of old age benefits on the income position and poverty status of the elderly in the Netherlands, 1985-1988

	Absolute		Relative		Positional	
	Yes (n=280)	No (n=8)	Yes (n=280)	No (n=8)	Yes (n=280)	No (n=8)
Entrance into the system of old age benefits						
Head-count			cf. absolute perspective			
- country-specific	0.412	*			0.638	*
- common definition	0.398	*			0.589	*
Median income loss						
- country-specific	2,133	*	0.156	*	0.189	*
- common definition	1,377	*	0.200	*	0.176	*
Inequality of income losses						
- country-specific	-	-	1.105	*	-	-
- common definition	-	-	0.891	*	-	-
Inflow into poverty			- = not computed			
- country-specific	0.008	*	* = no negative income transitions			
- common definition	0.000	*				

Comparing Belgium and the Netherlands, it is only possible to draw a definite conclusion across indicators if an absolute view on downward income mobility is taken. In that case, retired persons in Belgium appear to be worse off than in the Netherlands: More person undergo negative income changes when they retire, these losses are of a bigger amount and inflow into poverty is higher.

Positional mobility is higher in the Netherlands than in Belgium in terms of the head-count and median income loss. Taking a relative view on downward income mobility, we find that, with the exception of the head-count, the income position of retiring people is worse in the Netherlands than in Belgium.

6.4 The impact of income mobility on the dynamics of deprivation

This section deals with the impact of income mobility on the dynamics of deprivation. It is expected that income gains are associated with an improvement in living conditions. Again, income mobility may be studied from an absolute, a relative and a positional perspective. Table 10 presents the results from regressing changes in income on the dynamics of deprivation. The latter were defined as changes in the rank position on the SDS between 1988 and 1985 as a proportion of the largest possible change of rank (i.e., the number of observations minus 1). The initial rank on the SDS was included for reasons outlined in Section 6.2. Moreover, an interaction term between age and income change was included to test whether the living conditions of the elderly were less affected by changes in income than those of the non-elderly.

None of the estimates of the impact of income change on the dynamics of deprivation among the elderly appeared to be statistically significant. Apparently, the living conditions of the elderly are hardly affected by changes in income. The interaction terms show that this is not the case among the non-elderly, whose living conditions tend to improve with increases in income.

Table 10: The impact of income dynamics (absolute, relative, positional) on the dynamics of deprivation in Belgium and the Netherlands (controlling for initial level of deprivation), regression coefficients, 1985-1988

	Absolute	Relative	Positional
Belgium			
- intercept	0.31 ⁺⁺⁺	0.31 ⁺⁺⁺	0.31 ⁺⁺⁺
- initial level of deprivation	-6.67*10 ⁻⁵⁺⁺⁺	-6.67*10 ⁻⁵⁺⁺⁺	-6.66*10 ⁻⁵⁺⁺⁺
- income change	-1.21*10 ⁻⁶	0.009	-0.004
- < 55 years of age	0.022 ⁺⁺⁺	0.025 ⁺⁺⁺	0.021 ⁺⁺⁺
- < 55 years * income change	-3.18*10 ⁻⁶⁺⁺⁺	-0.048 ⁺⁺	-0.049 ⁺
R ²	33.0%	33.2%	33.0%
The Netherlands			
- intercept	0.35 ⁺⁺⁺	0.34 ⁺⁺⁺	0.34 ⁺⁺⁺
- initial level of deprivation	-6.01*10 ⁻⁵⁺⁺⁺	-6.00*10 ⁻⁵⁺⁺⁺	-5.98*10 ⁻⁵⁺⁺⁺
- income change	-1.12*10	-0.003	-0.013
- < 55 years of age	-0.041 ⁺⁺⁺	-0.037 ⁺⁺⁺	-0.044 ⁺⁺⁺
- < 55 years * income change	-3.31*10 ⁻⁶	-0.060 ⁺⁺	-0.096 ⁺⁺⁺
R ²	32.2%	32.2%	32.3%
+++	Significant at the 1% level		
++	Significant at the 5% level		
+	Significant at the 10% level		

6.5 The independent impact of income dynamics and (early) retirement on the dynamics of deprivation

In Section 6.2, it was suggested that the observed lack of association between (early) retirement and the dynamics of living conditions could be caused by differences in the initial level of deprivation. The regression estimates presented in Table 11 show this to be the case in the Netherlands,⁷ although in an unexpected manner. After controlling for differences in initial level of deprivation, the difference between those who retired early and those who did not appeared to be statistically significant at the 10% level. However, the (negative) direction of the difference is different from the (positive) one expected. Including measures of income change hardly affected the impact of early retirement. Apparently, early retirement in the Netherlands contributes to a decrease in subjective deprivation despite the associated income loss.⁸

⁷ In the Netherlands, the initial level of deprivation among those retiring early proved to be significantly lower than among those not retiring early. Since higher initial levels of deprivation contribute to an improvement of living conditions, the bivariate association between early retirement and the dynamics of deprivation is partly spurious.

⁸ Although in the same direction, the impact of early retirement on *objective* deprivation appeared to be statistically insignificant at the 10% level. This suggests that the observed impact on *subjective*

Table 11: The independent impact of income dynamics (absolute, relative, positional) and (early) retirement on the dynamics of deprivation in Belgium and the Netherlands (controlling for initial level of deprivation), regression coefficients, 1985-1988

	Income change excluded	Absolute income change included	Relative income change included	Positional income change included
The Netherlands: Early retirement				
- intercept	0.34 ⁺⁺⁺	0.34 ⁺⁺⁺	0.34 ⁺⁺⁺	0.34 ⁺⁺⁺
- early retirement	-0.043 ⁺	-0.043 ⁺	-0.048 ⁺⁺	-0.045 ⁺
- initial level of deprivation	-5.04*10 ⁻⁵⁺⁺⁺	-5.05*10 ⁻⁵⁺⁺⁺	-5.03*10 ⁻⁵⁺⁺⁺	-5.01*10 ⁻⁵⁺⁺⁺
- income change	-	-1.73*10 ⁻⁶	-0.048 ⁺	-0.059
R ²	27.9%	28.2%	28.3%	28.2%
Belgium: Early retirement				
- intercept	0.35 ⁺⁺⁺	0.34 ⁺⁺⁺	0.34 ⁺⁺⁺	0.35 ⁺⁺⁺
- early retirement	-0.035	-0.032	-0.030	-0.032
- initial level of deprivation	-6.46*10 ⁻⁵⁺⁺⁺	-6.47*10 ⁻⁵⁺⁺⁺	-6.56*10 ⁻⁵⁺⁺⁺	-6.48*10 ⁻⁵⁺⁺⁺
- income change	-	2.02*10 ⁻⁶	0.030	0.034
R ²	31.5%	31.6%	32.1%	31.6%
Belgium: Retirement				
- intercept	0.17 ⁺⁺⁺	0.15 ⁺⁺⁺	0.16 ⁺⁺⁺	0.17 ⁺⁺⁺
- retirement	0.002	0.019	0.008	0.007
- initial level of deprivation	-5.16*10 ⁻⁵⁺⁺⁺	-5.00*10 ⁻⁵⁺⁺⁺	-5.20*10 ⁻⁵⁺⁺⁺	-5.13*10 ⁻⁵⁺⁺⁺
- income change	-	9.03*10 ⁻⁶⁺⁺	0.105 ⁺	0.107
R ²	22.9%	25.5%	25.6%	24.0%
+++	Significant at the 1% level			
++	Significant at the 5% level			
+	Significant at the 10% level			

In Belgium, including the initial level of deprivation did not reveal the hypothesized impact of (early) retirement. Apparently, changes in living conditions are not affected by (early) retirement in Belgium.

7. Conclusions

1. In 1985, the average level of deprivation in Belgium and the Netherlands was about the same. However, Belgium saw an increase between 1985 and 1988, while deprivation remained at a stable level in the Netherlands. In both countries, the difference in deprivation between the non-elderly and the elderly increased. However, while the elderly in the

deprivation is somehow related to the weighting scheme of the SDS.

Netherlands were worse off than the non-elderly, the opposite situation was found in Belgium in 1988.

2. At the level of individuals, the analysis of deprivation dynamics indicated that the majority of the elderly as well as the non-elderly population experienced a change in living conditions which brought them in a different quintile position on the Subjective Deprivation Scale. As may have been expected, large changes in living conditions were less likely than small changes, while no change was more likely for the non-deprived and the severely deprived than for those taking an intermediate position. Moreover, living conditions turned out to be more stable in the Netherlands than in Belgium and, among the Dutch, more stable among the elderly than among the non-elderly.
3. As expected, the income position of the elderly appeared to be comparable between the two countries. Regarding income mobility due to early retirement,⁹ the association between the probability of experiencing income loss and early retirement appeared to be stronger in Belgium compared to the Netherlands. In both countries, no relationship was found between the median absolute/relative income loss and early retirement, while the positional loss was larger among those not retiring early. The latter association was about the same in Belgium and the Netherlands. In Belgium, relative income losses experienced by those going into early retirement were more unequally distributed than for those not going into early retirement. In the Netherlands, however, the reverse situation holds. Finally, inflow into poverty was more likely among those retiring early than among those not retiring early. The association was about the same in Belgium and the Netherlands.
4. The (bivariate) relationship between (early) retirement and the dynamics of deprivation turned out to be statistically insignificant. Apparently, the total impact of (early) retirement on the living conditions of elderly people is rather weak or even absent.
5. From the analysis of the relationship between income mobility and deprivation dynamics, it appeared that living conditions were indeed directly affected by changes in income among

⁹ The relationship between retirement (i.e., entrance into the system of old age benefits after reaching the legal retirement age) and income dynamics could not be estimated for the Netherlands, because of an insufficient number of elderly persons not entering the system. Therefore, Belgium and the Netherlands could not be compared in this respect.

the non-elderly. However, among the elderly, the association was found to be statistically insignificant. Apparently, income loss among the elderly (caused by (early) retirement, for example) does not produce a worsening of living conditions. One explanation for this result may be ability to draw on financial assets and other types of wealth to avoid deprivation, at least for some time (Callan, Nolan & Whelan 1994).¹⁰ A second explanation may be that children give (financial) support to their parents in case of income loss.¹¹

6. In the Netherlands, those not retiring early proved to be more deprived than those retiring early. Since people at higher levels of deprivation have a higher probability of experiencing an improvement of living conditions, this produces a spurious association between early retirement and a worsening of living conditions. If initial level of deprivation is taken into account, however, early retirement appears to produce a minor improvement in living conditions.

¹⁰ According to data from the 1987 wave of the Dutch Socio-Economic Panel Survey, savings were significantly higher among the elderly. Moreover, data from the 1992 wave of the Belgian Socio-Economic Panel presented by Van den Bosch (1995) indicate that the aged are wealthier than the non-aged.

¹¹ With respect to financial support, this hypothesis could be tested for the Netherlands, since the Socio-Economic Panel survey included information on financial gifts and donations by persons outside the household. Indeed, the impact of income change turned out to be somewhat stronger among elderly persons who did not receive financial support. However, the difference between those receiving financial support and those not receiving any support appeared to be statistically significant according to the absolute perspective on income change only.

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