

Theme F: Population Ageing

Demographic, social and economic aspects of older persons in Portugal

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Background and purpose of the research

In Portugal as in the most developed countries the population ageing is a phenomenon with more and more importance. This paper aims to contribute to the study of the population ageing in Portugal, identifying the main demographic, economic and social characteristics, with special emphasis in poverty and vulnerability to social exclusion.

Data and methods which were used

The data used in the first part is based on demographic statistics. For the analysis of poverty the authors explored the households database of the last two available Portuguese Household Budget Surveys (1989/90 and 1994/95).

In order to enable the identification and analyse of the poor households with and without older persons (65 and over), poverty thresholds for revenue, living conditions and multiple poverty were established to the whole country, and, in some variables, urban and rural desegregation was also considered.

Main results

The households with older persons increased 25,4% between 1989/90 and 1994/95. The households with more emphasis in the present work, those constituted by *older persons living alone* and by a *couple of older persons*, increased 35,1% and 33,7%, respectively, in the same moments.

The proportion of the poor in the households with older persons is almost three times higher than in the households without older persons, in both surveys. This happens in the criteria of the income and of the living conditions, and it is even higher considering the multiple poverty.

The Income Poverty Index (60% of the median total net income) increased from 20,9% in 1989/90 to 21,1% in 1994/95, for all households, although the proportion of the poor households with older persons registered a slight decrease (from 37,4% to 33,0%). The Living Conditions Poverty Index reflects an aggravation of the proportion of the households in general (increasing from 20,9% to 22,7%) and the poor households with older persons in particular (from 33,4% to 36,6%). Consequently, the Multiple Poverty Index, resulting in the cumulative poverty of the both indices, also increased among total households (from 11,1% to 12,6%), and in the households with older persons (from 21,8% to 22,0%).

Considering urban and rural disaggregation, the proportion of poor households score particularly high values in the rural areas, where a half of the households with older persons is poor. This is true in the revenue and in the living conditions criteria, both increasing between the two surveys. Only the multiple poor households with older persons registered lower values: 33,3% in 1989/90 and 40,3% in 1994/95.

Conclusions

The analysis confirms that the households with older persons are some of the most affected by poverty in Portugal, especially those located in rural areas. The living conditions poverty index registered the highest differences between households with and without older persons.

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Introduction

Population ageing is characterised by the increase in the proportion of older persons (65 and over) to the detriment of the young population (0-14 years), and/or to the detriment of the working-age population (15-64 years).

The shift from one demographic model of high fertility and mortality to a model in which both are low, causes the decline of the young population and the increase of the older population, thus producing occurring the ageing phenomenon.

This social phenomenon, one of the most important at the turn of the century, requires that we reflect on issues of increasing significance such as the retirement age, means of subsistence for older persons, quality of life, intergenerational solidarity, the financing of social security and health systems and the existing social model itself.

Joining to the celebration of 1999 as the International Year of the Older Persons, the Instituto Nacional de Estatística (INE)¹ disseminated a study with the objective to presenting the development of the demographic characteristics of older persons in Portugal at the end of the century and producing a portrait of their economic and social conditions. However, based on the importance of the phenomenon and the dimension it is assuming in this and in other societies, it is important to know better this issue in its various aspects.

This paper constitutes a contribution for the knowledge of some characteristics of older persons in the country, it emphasises the vulnerability of this population group to situations of poverty and social exclusion.

This work is divided into two parts. The first part presents a brief characterisation of the population, including household composition and the educational level of older persons as well as certain aspects regarding housing conditions and household goods of the various types of households whether they integrate older persons or not.

In order to focus the study on households with older persons, a specific classification was created resulting in five types of households: *older person living alone* (one old person aged 65 and over); *couple of older persons* (both persons aged 65 and over living alone); *couple with one older person* (couple living alone); *older person as head of household and relatives* (head of household aged 65 and over with relatives only); and *other households with older persons*.

In the second part of this work, we will broach certain aspects regarding poverty and the great vulnerability of older persons to social exclusion. Resorting to specific methodologies, we established poverty lines by income, living conditions and multiple (resulting from a combination of the previous two), enabling an analysis for the national territory and, whenever possible, at the regional level, based on the "urban area classification" in force at INE.

Since the source of information used (Household Budget Survey - HBS) does not allow an analysis as usually associated with social exclusion, including living conditions and civil, social and politics participation, It will be given here more emphasis on poverty alone. The European Community Household Panel 1994-2000 will make possible the longitudinal study of poverty and social exclusion phenomena and the analysis of subjective poverty.

The approach to poverty and social exclusion is integrated in a project on this issue, currently being developed, in the Research Department of INE.

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¹ National Statistics Institute of Portugal

I. General Aspects of Older Persons

1.1. – Demographics

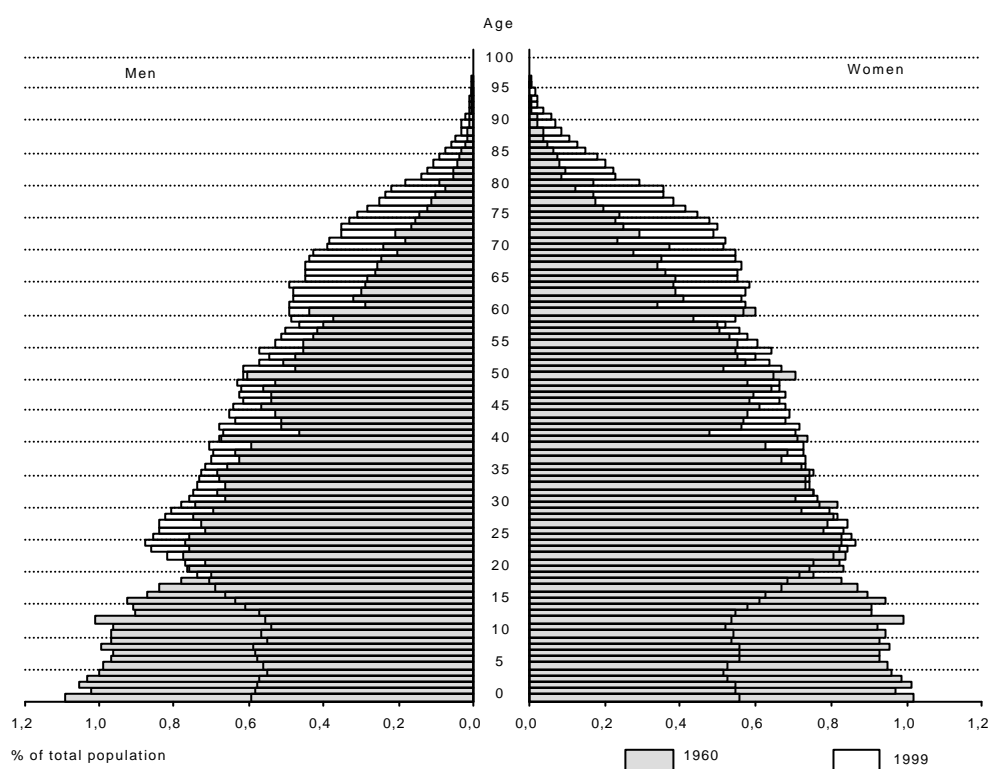
Since 1960, the population has been characterised by a decline in the number of births and deaths and the existence of strong migratory flows causing profound changes in the age structure with the subsequent acceleration of demographic ageing. In 1999, the number of older persons exceeded one and a half million inhabitants and represented 15,3% of the total population against 8,0% in 1960.

The majority of older persons are women. In 1999, women aged 65 and over represented 59,2% of the total number of older persons; this proportion increases to 63,0% for older persons aged 75 and over and to 70,5% for the population aged 85 and over.

The demographic ageing phenomenon translated to a decline of 35,4% in the young population (aged 0-14) and an increase of 116,5% in older persons (65 and over) between 1960 and 1999.

The age pyramid for the resident population in Portugal shows a narrowing of the bottom as a result of a fertility decline and widening of the top resulting from longer expectancy of life.

Graph 1.1 – Population by Age, Portugal (1960/1999)



Source: INE, calculated from Population Estimates

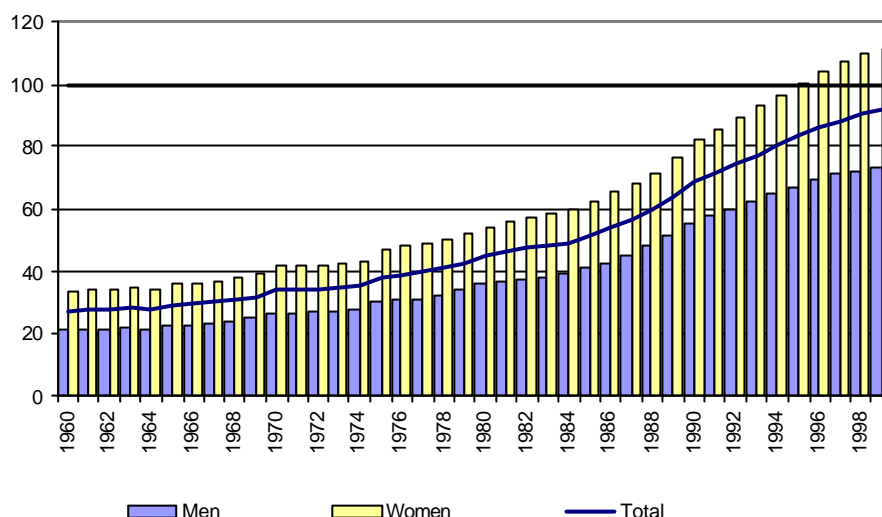
This evolution resulted in an average annual growth rate recorded by older persons between 1960 and 1999 of 2,0%. However, this growth was not evenly distributed within the older population: the population aged 85 and over has recorded a rate of 2,6% during the same period, while the population aged 75 and over accounted for an average annual growth rate of 2,4%.

This situation illustrates the ageing of the older population itself, clearly seen in the longevity ratio², which increases from 33,6 older persons aged 75 and over for every 100 aged 65 over, in 1960, to 39,6 in 1999.

² Ratio between the population aged 75 and over and the population aged 65 and over; it is an additional indicator to measure population ageing

The ageing ratio³ presented a continuous increase throughout the period under study, and the difference between the sexes is clearly evident. In 1960, there were 27 older persons for every 100 young persons (21 men and 34 women), with this ratio increasing to 91,6 older persons in 1999. During that year, while between men the ratio is 73 older persons for every 100 young persons, for women the number of older persons exceeds that of young people (111,2), consolidating a situation which has already been taking place since 1995.

Graph 1.2 – Ageing Ratio, Portugal (1960–1999)



Source: INE, calculated from Population Estimates

The trend in the old age dependency ratio⁴ between 1990 and 1999 shows that the number of older persons increased in relation to the working-age population (15-64), with this increase being even more significant in the case of women. In 1999, there were 18,8 older men for every 100 working-age men and 26,2 older women for every 100 working-age women. This fact is not foreign to the greater life expectancy of women.

Between 1960 and 1999, the average expectancy of life of men increased by about 10 and a half years and about 12 for women. As a result of male excess mortality, there was a difference of slightly more than 7 years in 1999, favourable to women who live on average 78,9 years (as compared with 71,8 for men).

The difference on both sexes becomes less significant as the population ages, although the lead of the female sex is constant. It was estimated that in 1999 men attaining the age of 65 still live, on average, another 14,3 years and women 17,8 years.

The last available population projections based on a small increase in fertility, a moderate increase in life expectancy and a positive migration balance point to an old age structure. Older person will continue to increase in absolute numbers and in relative importance, and are expected to surpass the number of young persons between 2010 and 2015.

Based on the above scenario, the percentage of older persons will reach 18,1% in 2020, while the proportion of young persons will drop to 16,1% (14,7% and 17,6% in 1995, respectively). At the same time, there will be an increase in the proportion of the population aged 75 and over, which is expected to rise to 7,7% in 2020, of which 63,6% will be women.

Thus, should these trends be confirmed, the ageing ratio would rise uninterruptedly, representing approximately 112 older persons for every 100 young persons in 2020.

³ Quotient between the older population (aged 65 and over) and the young population (0-14 years)

⁴ Quotient between the older population (aged 65 and over) and the working population (15-65 years)

A final remark on causes of death to stress that *cerebrovascular diseases* are the primary cause of death among the older resident population in Portugal. Together with the *symptoms, signs and undiagnosed illnesses, the other diseases of the respiratory tract* including *pneumonia*, and *ischaemic heart disease*, they have represented during the 90's the leading causes of death among the older population, although in the last years the proportion has been decreasing.

1.2 – Household composition

In 1991, according to Population Census data, 2,5% of older persons lived in institutional families, with this number being higher among women (3,7% compared with 1,9% of men). This figure increases proportionately to age, accounting, for example, for 6,1% of the population aged 80 and over.

The '91 Census also shows that roughly 30% of classic families included at least one older person and families consisting only of older persons represented 14,9% of the total number of families. Of these, 51,4% consisted of older persons living alone. The majority of single-member families of older persons comprised women (78,2%).

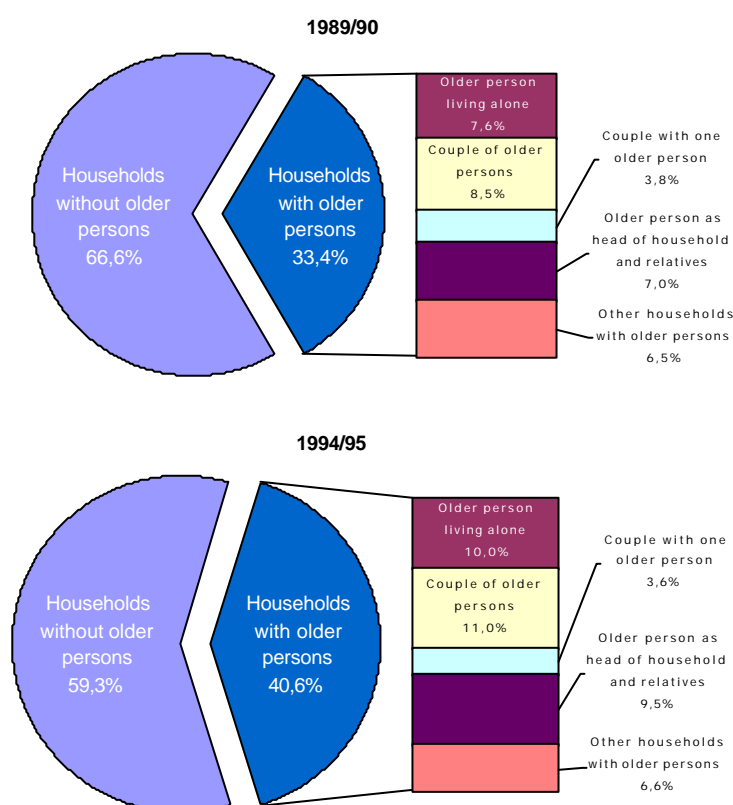
Careful analysis of other data sources, in particular the Employment Survey, enables us to conclude that there are differences between the genders in the various types of families. Thus, in 1998, the great majority of older men lived with their spouse (82,9%) while for women this proportion is only 54,8%. The households comprising older persons living alone, in addition to recording a small increase in the 90's, are, at any of the observed moments, always greater for women. In 1998, while the proportion of men living alone was only 9,9%, the proportion of women stood at 26,9%. Male excess mortality and the definitive female celibacy rates are factors capable of explaining these differences.

It is possible to mention other characteristics regarding the household composition of the older population such as the dissolution and founding of families. In relation to the first, the data available points to, as is natural, higher widowhood rates among older persons (20,6 per thousand inhabitants in 1998) when compared with the population of other ages. Divorces also occur among older persons, although the divorce rate is lower than the national average.

As regards the founding of a new family, the figures are higher for older men, which means that among older persons it is especially men who remarry and in a shorter period of time in relation to the dissolution of the previous marriage.

INE's HBS uses the private domestic unit (PDU) as the base concept.⁵

Graph 1.3 – Private Domestic Unit Composition, Portugal (1989/90-1994/95)



Source: INE, Household Budget Survey 1989/90 and 1994/95

⁵ Private Domestic Unit (PDU) is taken to mean:

- a group of persons living in the same *housing unit* whose normal expenditure on food and lodging is get jointly (joint budget), independently of the existence of family ties;
- the individual person fully occupying a *housing unit*, or sharing it with other but not fulfilling the above condition .

According to the HBS, in 1989/90 more than one third (33,4%) of households included older persons. 8,5% of the total number of households consisted of *couples of older persons* and 7,6% by *older persons living alone*; *couples with one older person* represented 3,8% and the PDU consisting in *older person as head of household and relatives* and *other households with older persons* accounted for 13,5% of the total.

The relative weight of the PDUs with older persons during the period 1994/1995 rose to 40,6%, representing an increase of 21,8% of total households between the two periods; on the other hand, the households without older persons lost their relative weight, totalling 59,4%.

The *older persons living alone* and *couples of older persons* also rose, with the relative weights increasing from 10,0% to 11,0% in 1994/1995, respectively.

1.3 – Educational Level and Occupation

Data from the 1998 Labour Force Survey makes it possible to determine the educational level of older persons based on the categories of the *International Standard Classification of Education (ISCED)*⁶, used by the United Nations.

In 1998, more than half the population aged 65 and over (57,1%) was classified as level 0 of ISCED, which means that it had no educational level. This proportion is greater for women (67,3% as compared with 42,9% for men).

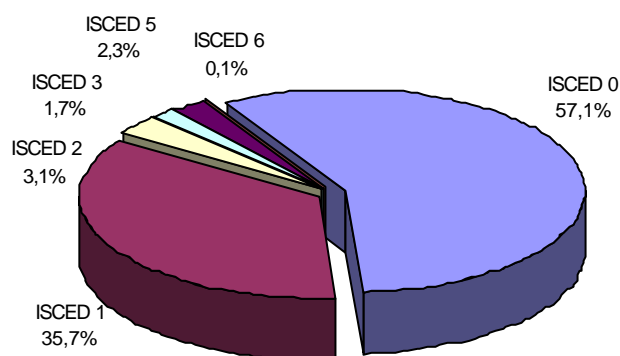
In second place is level 1, held by 35,7% of older individuals, with a slightly higher relative weight in the case of men (46,8% compared with 27,8% for women).

Levels 2 to 6 of ISCED add only 7,2% of the older population, of which 3,1% belonged to level 2, which at present represents obligatory primary education and 2,3% belonged to level 5.

We thus see that the great majority of older persons (more than 90%) had very low educational levels, between levels 0 and 1. On the other hand, we also see that older women are in a more unfavourable situation since they present lower educational levels.

Although the relative weight of the older working-age population represents only 17,2% of the total older population, its educational level is also very low. The percentage of economically active older persons without any educational level is 53,1% while those having a level 1 education comprise 39,4% of the older working-age population. It should be mentioned that the proportion of economically active older persons with a university education is higher (3,3%) compared with the total population of this population group.

Graph 1.4 – Older Persons Educational Levels, Portugal (1998)



Source: INE, calculated from Labour Force Survey 1998

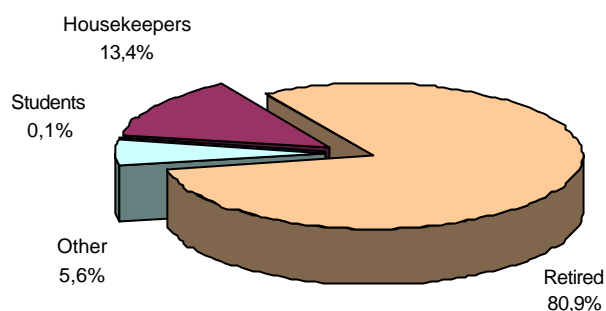
Based on the same source, 82,8% of the older working-age population in 1998 was considered economically inactive. The structure of this population indicates that 80,9% of the total were retired, 13,4% housekeepers and 5,6%, economically inactive for other reasons. In each one of these headings, the majority consisted of women.

⁶ **Level 0** represents pre-school education (this also includes non-attendance of school); **level 1** the first and second cycle of primary education; **level 2** the 3rd cycle of primary education; **level 3** secondary education; **level 4** has no equivalent in the national educational system (represents a post-secondary education which is not university education); **level 5** represents university education which covers “bacharelato”, undergraduate degree, DESE, post-graduate and master’s degree; and **level 6** doctorate degree.

In 1998, the older working-age population was estimated at 254 thousand individuals, having grown 43,9% in relation to 1992. During the period between 1992 and 1998, the working population aged 70 and over grew more sharply (73,3%) than the population aged 65-69 (20,5%).

This strong growth was caused by the progressive increase in the number of older women in the labour market. During this same period, the percentage change of economically active women aged 65 and over was considerably greater: 65,3%, while in the male population, this growth was only 29,7%.

Graph 1.5 – Distribution of Inactive Older Persons, Portugal (1998)



Source: INE, calculated from Labour Force Survey 1998

1.4 – Housing Conditions

One way to assess the living conditions of a population includes characterising its comfort conditions. Based on the HBSs of 1989/90 and 1994/95, the characterisation of accommodation, the analysis of the basic housing infrastructure, existing domestic household goods and the means of transport during the first half of the 90's, reveal an improvement in the living conditions of the population in general and of the older population in particular, although it is unevenly distributed in all the types of households analysed.

The percentage of households with older persons living in slums or other non-conventional living quarters dropped from 3,0% to 0,9% between 1990 and 1995. However, when considering only households consisting of one older person living alone, the percentage remained 2,4%. The renewal of the housing stock also impacted older persons positively despite the fact that they live for the most part in buildings constructed before 1970.

In Portugal, the number of over-crowded dwellings (dwellings in which the number of rooms per person is less than one) is quite high: in 1995 were covered 31,1% of lodgings. This situation is, however, less difficult for households with older persons (22,5%), in particular households comprising older couples (9,6%).

Compared with the population in general (total households), the space available in the dwellings naturally favours the older population; however, when the comfort of the dwellings is evaluated in terms of basic infrastructure, in particular the existence of running water, electricity, sanitary facilities and sewage system, the situation is the inverse.

In fact, despite the improvement in general terms regarding the basic housing infrastructure, households with older persons continue to present results reflecting worse conditions than the population in general.

In 1995, 9,6% of households with older persons did not have running water, 2,8% were in the same situation regarding electricity, 11,3% did not have sanitary facilities and 11,8% were connected to a sewage system.

The situation is even more serious when analysing households consisting of one older person living alone: 2,8% did not have a kitchen; 15,1% did not have running water; 4,6% did not have access to electricity; 18,3% and 18,6% did not have sanitary facilities or a sewage system, respectively. It should also be said that, of this type of households, 3,1% lived without any basic conditions in their dwellings.

Table 1.1 – Distribution of some basic infrastructures of dwellings by type of households (%), Portugal (1989/90 – 1994/95)

Dwelling conditions	Total Households		Households with older persons		Type of household									
					Older person living alone		Couple of older persons		Couple with one older person		Older person as head of household and relatives		Other households with older persons	
	1990	1995	1990	1995	1990	1995	1990	1995	1990	1995	1990	1995	1990	1995
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
kitchen														
Yes	99,3	99,2	99,0	99,2	97,1	97,2	99,3	99,0	99,7	99,8	99,4	99,0	99,9	99,6
No	0,7	0,8	1,0	0,8	2,9	2,8	0,7	1,0	0,3	0,2	0,6	1,0	0,1	0,4
Running water														
Yes	89,0	93,2	84,6	90,4	78,1	84,9	84,0	90,0	88,3	95,9	83,8	91,3	91,9	95,1
No	11,0	6,8	15,4	9,6	21,9	15,1	16,0	10,0	11,7	4,1	16,2	8,7	8,1	4,9
Electricity														
Yes	97,8	98,2	96,7	97,2	91,3	95,4	98,3	97,5	97,9	99,3	97,4	97,8	99,2	97,7
No	2,2	1,8	3,3	2,8	8,7	4,6	1,7	2,5	2,1	0,7	2,6	2,2	0,8	2,3
Sanitary facilities														
Yes	90,1	92,9	83,7	88,7	70,9	81,7	83,1	87,2	86,6	93,3	84,0	90,1	94,2	97,2
No	9,9	7,1	16,3	11,3	29,1	18,3	16,9	12,8	13,4	6,7	16,0	9,9	5,8	2,8
Sewage system														
Yes	88,7	92,4	82,7	88,2	76,0	81,4	81,2	86,6	85,1	93,2	81,6	90,1	92,3	95,4
No	11,3	7,6	17,3	11,8	24,0	18,6	18,8	13,4	14,9	6,8	18,4	9,9	7,7	4,6
Without basic infrastructures (running water, electricity and sanitary facilities)														
	1,2	1,0	1,9	1,5	5,6	3,1	0,8	1,5	1,1	0,5	1,0	1,1	0,3	0,4

Source: INE, calculated from HBS 1989/90 and 1994/95

A more detailed analysis of the older population living alone reveals a situation less favourable for the male population. Roughly one fourth of older men living alone do not have running water in the dwelling, while this figure drops to 12,2% for women; 10,6% did not have electricity, compared with 3,0% for women; 27,1 did not have sanitary facilities and 29,0% were not connected to any type of sewage system, while for women these figures only affect 15,9% and 15,8% of dwellings, respectively.

1.5 – Household Goods and Means of Transportation

The living conditions of a population can also be evaluated based on the existence of household goods in the dwellings it lives in.

Household goods such as *stove* or *refrigerator* already exist in almost every dwelling. In 1995, 99,3% of households owned a *stove* and 94,5% a *refrigerator*. This situation repeats itself in households with older persons, whatever the type of household.

Other household goods became widespread during the period under study, both in the general population and the older population. These include *colour television* (79,9% of households with older persons), *washing machine* (59,0%), *freezer* (45,4%) and *telephone* (65,0%), based on data from 1994/1995.

Of note is the fact that certain types of goods capable of providing comfort to those using them such as heating and air conditioning units as well as washing machines and tumble dryers are scarce in a certain number of households with older persons.

Once again, there are situations in which households with older persons are at a clear disadvantage: households comprising one *older person living alone*, are in a more disadvantaged situation as far as owning household goods is concerned than other types of households with older persons. The existence of *colour television* covered 64,6% of those households, 40,4% had a *washing machine*, 19,3% a *freezer* and only 50,3% had a *telephone*.

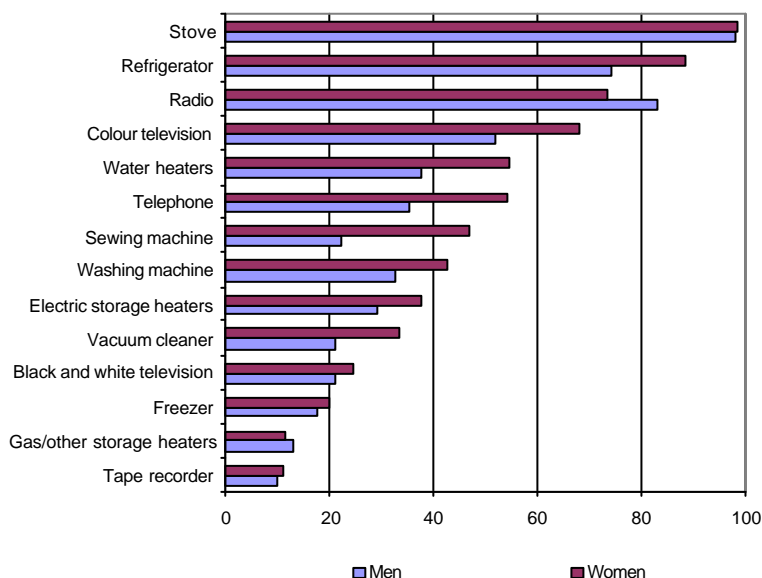
Table 1.2 – Distribution of some household goods by type of households (%), Portugal, 1989/90–1994/95

Household goods	Total Households		Households with older persons		Type of household									
					Older person living alone		Couple of older persons		Couple with one older person		Older person as head of household and relatives		Other households with older persons	
	1990	1995	1990	1995	1990	1995	1990	1995	1990	1995	1990	1995	1990	1995
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Stove	98,1	99,3	96,8	99,0	93,0	98,4	97,1	98,7	98,6	99,4	97,3	99,6	99,0	99,4
Micro wave	-	11,6	-	5,5	-	3,1	-	3,7	-	9,7	-	6,1	-	8,7
Refrigerator	88,8	94,5	82,0	91,4	66,0	85,3	85,9	91,9	88,0	95,8	83,3	93,2	90,8	94,5
Freezer	35,8	53,9	24,0	45,4	6,1	19,3	21,6	47,7	33,2	61,4	26,4	48,5	40,1	68,0
Air conditioner	-	2,3	-	1,5	-	1,3	-	1,8	-	1,4	-	1,1	-	1,9
Electric storage heaters	-	52,0	-	42,6	-	35,7	-	38,3	-	49,2	-	44,7	-	53,9
Gas/other storage heaters	-	17,3	-	15,4	-	11,8	-	13,9	-	14,4	-	16,6	-	22,4
Water heaters	-	71,6	-	62,2	-	50,9	-	59,1	-	69,7	-	65,2	-	76,3
Black and white television	49,6	21,1	51,8	24,4	43,8	23,8	54,6	25,4	55,7	21,5	54,5	25,8	52,6	23,4
Colour Television	49,6	87,8	35,6	79,9	19,3	64,6	33,1	79,1	36,3	87,3	38,2	85,4	54,7	92,3
Satellite receiver	-	7,6	-	3,7	-	1,4	-	4,6	-	3,9	-	3,4	-	6,0
Hi-Fi	-	30,8	-	13,5	-	4,1	-	4,9	-	11,4	-	21,2	-	32,0
Compact-Disc player	-	18,2	-	7,6	-	1,3	-	2,1	-	6,4	-	12,5	-	19,8
Radio	84,1	90,3	74,8	85,3	56,8	75,3	76,4	84,6	77,3	88,2	79,4	89,7	87,4	93,5
Tape recorder	-	40,2	-	23,6	-	10,9	-	13,7	-	21,9	-	33,4	-	46,3
Vacuum cleaner	49,9	58,5	35,8	43,5	21,8	30,8	31,7	38,9	42,5	46,9	33,5	46,2	55,9	64,8
Washing machine	52,9	72,8	37,1	59,0	17,8	40,4	36,0	54,5	45,7	68,9	35,2	66,0	58,2	79,3
Tumble dryer	-	5,3	-	2,5	-	0,4	-	1,5	-	1,8	-	3,5	-	6,3
Dishwasher	6,9	12,8	5,2	7,8	1,8	3,7	4,4	6,6	5,4	8,0	6,3	8,7	9,0	14,7
Dehumidifier	-	1,9	-	1,4	-	0,6	-	1,0	-	2,4	-	1,9	-	2,0
Sewing machine	48,9	48,1	49,8	51,5	33,8	41,5	50,3	49,1	54,7	57,3	53,3	54,0	61,4	63,9
Video recorder	-	40,7	-	20,6	-	5,6	-	9,0	-	22,9	-	30,8	-	46,4
Camcorder	-	7,3	-	2,7	-	1,1	-	1,2	-	1,9	-	3,7	-	6,4
Photographic equipment	28,4	39,9	13,9	20,5	3,5	7,3	7,7	10,4	9,4	18,3	15,2	28,9	35,0	46,3
Personal computer	5,2	10,1	2,1	3,4	0,5	0,3	0,8	0,6	0,0	0,7	1,5	5,9	7,3	10,6
Mobile phone	-	2,0	-	0,4	-	0,0	-	0,5	-	0,1	-	0,7	-	0,5
Telephone	42,2	72,0	36,8	65,0	25,7	50,3	29,4	61,3	40,6	69,3	38,9	71,4	54,9	82,2

Source: INE, calculated from HBS 1989/90 and 1994/95

If we take into account households of one *older person living alone*, we see that the male population is once again at a disadvantage. For goods of any relevance in those households, that is, goods with a cover greater than 10%, the percentages in female households are always greater than those for households with older males living alone, with the exception of *radios* and *gas storage heaters*.

Graph 1.6 – Distribution of some household goods in households of older person living alone (%), Portugal, 1994/95



Source: INE, calculated from HBS 1994/95

The means of transportation held by the population, although not associated with the category of plant, are also an indicator of its living conditions. The most relevant means of transport in all households is the *automobile*.

In 1990, only 39,1% of households owned this mode of transportation; in 1995, this figure rose to 52,0%. In households with older persons, these percentages are noticeably lower: in 1990, only 22,1% of these households owned this good, while in 1995 this figure rose to 32,6%.

II. Poverty and Social Exclusion

Poverty, just as social exclusion, is a complex and multi-dimensional phenomenon and, as a result, difficult to define and measure, either due to the insufficient sources of information available or the difficulty of formulating a conceptual framework, although the scientific community has long since identified the need for indicators to make use of the existing statistical sources and enable temporal and international comparability.

Taking into account certain studies already conducted in this area in Portugal, it is a known fact that older persons are one of the population categories most vulnerable to poverty and social exclusion, both because they are a marginalized social group or because, on the whole, they have an income below the poverty line.

This population group accumulates disadvantaged situations in a number of other domains: such as the low educational levels of most of the older population and poorer health conditions as well as, among other things, housing conditions which, as we have seen, are considerably less favourable to them.

With a view to initiating a multi-dimensional analysis of poverty in this specific group, three measures of relative poverty were calculated: the *Income Poverty Index* (IPI), regarding monetary and non-monetary incomes, the *Living Conditions Poverty Index* (LCPI), regarding the living conditions/ deprivation level of the households and the *Multiple Poverty Index* (MPI) resulting from the simultaneous incidence of poverty identified by the two previous indices⁷.

The HBS's from 1989/90 and 1994/95 were the principal source of information used in the preparation of this study.

In order to better understand how certain forms of poverty are distributed, the three indices were calculated by region, for the urban, semi-urban and rural areas.

We would like to stress the fact that this work only includes the calculation of three national-level poverty indices (IPI, LCPI and MPI) so that, whenever reference is made to poverty indices by type of PDU or by Classification of urban areas, we are specifying the weight of the poor, as previously identified by the national poverty lines in the various types of PDU's or urban areas.

2.1 – Poverty Indices

The *Income Poverty Index* (IPI) differs slightly from the generally used *Monetary Poverty Index* since it includes non-monetary incomes in the concept of Total Net Income⁸ in respect of which the poverty line is identified. The poverty line is drawn, in compliance with the provisions laid down by EUROSTAT, at 60% of the median total net income per equivalent adult having been applied to the information on individuals. The application of this line identified 20,9% of poor households according to income in 1990 and 21,1% in 1995.

⁷ The indicators used here are part of the recommendations for studies of this nature supplied by EUROSTAT. The methodologies used in calculating the Income Poverty Index (IPI) Living Conditions Poverty Index (LCPI) and Multiple Poverty Index (MPI) are presented at the end of this paper.

⁸ See Methodological Notes

Applying the line by type of households, it is possible to verify that households with older persons had a relative weight greater than the households without older persons by more than three times (37,4% compared with 12,6% in 1990 and 33,0% compared with 13,1% in 1995).

It is common to present other reference thresholds underlying the poverty line (such as 50% and 70% of the median total net income) since no studies have been conducted in this field showing that a certain percentage represents the true distribution between the lower-income population group and the rest of the population. This is, in fact, another EUROSTAT recommendation regarding studies on poverty and social exclusion and is justified both as a way of avoiding an airtight division between the poor and non-poor population and by establishing a number of different poverty lines, it is possible to observe the development of the greater or lesser degree of poverty.

The choice of the median as a statistical measure of central distribution is justified by the fact that it is least affected by the extreme values of income distribution or by sample fluctuations and has the characteristics of stability and robustness which are essential for establishing poverty lines.

Table 2.1 – Income Poverty Index by type of households (%), Portugal (1989/90-1994/95)

Type of households	Older person living alone	Couple of older persons	Couple with one older person	Older person as head of household and relatives	Other households with older persons	Households with older persons	Households without older persons	Total households	
1989/90	50% of the Median Total Net Income								
	Non Poor	58,1	71,7	79,6	80,7	90,1	75,0	92,8	86,9
	Poor	41,9	28,3	20,4	19,3	9,9	25,0	7,2	13,1
	60% of the Median Total Net Income *								
	Non Poor	43,0	53,7	70,7	70,8	83,3	62,6	87,4	79,1
	Poor	57,0	46,3	29,3	29,2	16,7	37,4	12,6	20,9
	70% of the Median Total Net Income								
	Non Poor	33,7	43,1	61,2	61,0	75,7	53,1	80,3	71,3
	Poor	66,3	56,9	38,8	39,0	24,3	46,9	19,7	28,7
1994/95	50% of the Median Total Net Income								
	Non Poor	63,7	75,1	84,5	86,6	88,0	77,9	92,3	86,4
	Poor	36,3	24,9	15,5	13,4	12,0	22,1	7,7	13,6
	60% of the Median Total Net Income *								
	Non Poor	53,0	60,2	71,8	77,9	81,4	67,0	86,9	78,9
	Poor	47,0	39,8	28,2	22,1	18,6	33,0	13,1	21,1
	70% of the Median Total Net Income								
	Non Poor	41,2	47,9	64,4	68,3	75,4	57,0	80,6	71,0
	Poor	58,8	52,1	35,6	31,7	24,6	43,0	19,4	29,0
Variation 1990/95	50% of the Median Total Net Income								
	Non Poor	9,6	4,7	6,2	7,3	-2,4	3,9	-0,6	-0,5
	Poor	-13,3	-12,0	-24,2	-30,5	21,4	-11,6	7,5	3,3
	60% of the Median Total Net Income *								
	Non Poor	23,1	12,1	1,5	10,0	-2,2	7,1	-0,5	-0,3
	Poor	-17,5	-14,0	-3,7	-24,3	11,1	-11,9	3,4	1,2
	70% of the Median Total Net Income								
	Non Poor	22,4	11,2	5,1	11,9	-0,4	7,2	0,3	-0,4
	Poor	-11,4	-8,5	-8,1	-18,6	1,3	-8,1	-1,2	1,0

* Income Poverty Line adopted by EUROSTAT

Source: INE, calculated from HBS 1989/90 and 1994/95

The IPI between 1990 and 1995, based on the criterion of 50% of the median of the total net income, shows that 13,1% of the total population was below the poverty line in 1989/90 and increased its relative weight to 13,6% in 1994/95.

In accordance with this line, the relative weight of the poor-income households in all households with older persons decreases between the two surveys, dropping from 25,0% in 1989/90 to 22,1% in 1994/95: The poor households without older persons recorded significantly lower values, despite having risen between the two periods (7,2% and 7,7%, respectively).

In turn, setting a poverty line at 70% of the median to the total net income yields a percentage of individuals with incomes below the poverty line representing more than one fourth of the total population. This proportion remained virtually unchanged during the period under consideration: 28,7% in 1989/90 and 29,0% in 1994/95.

By setting the poverty line at this level, we observe that virtually half of the households with older persons were considered income poor, recording a small decrease of 8,1% between the beginning and middle of the decade.

It should be said once again that the proportions recorded by households without elderly persons are well below the above-mentioned proportions and at no point do they exceed 20%. This line is, in fact, the only one showing a decrease, albeit very small, in the weight of poor households without elderly persons.

After this brief analysis of the three income poverty lines and from this point on, whenever reference is made to the Income Poverty Index or Line, the underlying criterion will be 60% of the median of the total net income.

An analysis of the various types of households with older persons shows that during the two periods, the PDU's comprising only one *older person living alone* and *couples of older persons* had the highest poverty indices. In 1995, 47,0% of *older persons living alone* and 39,8% of *couples of older persons* were poor, representing an improvement over 1990, which recorded values of 57,0% and 46,3%, respectively.

The *Living Conditions Poverty Index (LCPI)* includes information in particular on the lack of adequate housing conditions, household goods and means of transportation, with an individual being all the poorer the greater the lack of goods comprising the index. Bearing in mind the distribution of households based on the degree of deprivation, a poverty line was set that would classify as poor a percentage of individuals similar to the percentage indicated in the IPI, and then characterising the individuals selected.

**Table 2.2 – Living Conditions Poverty Index by type of households (%),
Portugal (1989/90-1994/95)**

Type of households		Older person living alone	Couple of older persons	Couple with one older person	Older person as head of household and relatives	Other households with older persons	Households with older persons	Households without older persons	Total households
1989/90	Non Poor	46,9	63,4	75,9	68,7	86,1	66,6	85,3	79,1
	Poor	53,1	36,6	24,1	31,3	13,9	33,4	14,7	20,9
1994/95	Non Poor	43,7	59,4	72,3	70,5	84,7	63,4	86,9	77,3
	Poor	56,3	40,6	27,7	29,5	15,3	36,6	13,1	22,7
Variation 1990/95	Non Poor	-6,9	-6,4	-4,6	2,6	-1,6	-4,9	1,9	-2,2
	Poor	6,1	11,0	14,6	-5,7	9,8	9,7	-10,8	8,3

Source: INE, calculated from HBS 1989/90 and 1994/95

Thus, 20,9% of PDU's with a greater degree of deprivation were selected in 1989/90 and 22,7% in 1994/95, since this was the percentage of PDU's identified below the poverty line.

First of all we see that in this index the tendency is contrary to that of the IPI regarding households with and without older persons, that is, between 1990 and 1995, the LCPI increases in the former (from 33,4% to 36,6%) and decreases in the latter (from 14,7% to 13,1%).

By breaking down the PDU's comprising older persons, we can see that also according to this measure of poverty, PDU's comprising *older persons living alone* are the poorest (rising from 53,1% in 1989/90 to 56,3% in 1994/95), followed by *couples of older persons* PDU's (which rose from 36,6% to 40,6%, respectively). Only PDU's with an *older person as head of household and relatives* contradicted the tendency of PDU's with older persons by recording a small decrease.

As already mentioned, the *Multiple Poverty Index* (MPI) derives from the simultaneous incidence of poverty identified by the two previous indices.

Table 2.3 – Multiple Poverty Index by type of households (%), Portugal (1989/90-1994/95)

Type of households		Older person living alone	Couple of older persons	Couple with one older person	Older person as head of household and relatives	Other households with older persons	Households with older persons	Households without older persons	Total households
1989/90	Non Poor	59,6	74,2	88,5	83,9	92,9	78,2	94,2	88,9
	Poor	40,4	25,8	11,5	16,1	7,1	21,8	5,8	11,1
1994/95	Non Poor	62,1	73,1	87,9	87,0	91,7	78,0	93,9	87,4
	Poor	37,9	26,9	12,1	13,0	8,3	22,0	6,1	12,6
Variation 1990/95	Non Poor	4,2	-1,4	-0,7	3,6	-1,3	-0,3	-0,4	-1,6
	Poor	-6,2	4,1	5,3	-19,0	17,3	1,0	6,1	13,1

Source: INE, calculated from HBS 1989/90 and 1994/95

Thus, 11,1% of PDU's were classified as poor based on this criterion in 1989/90 and 12,6% in 1994/95.

Regarding the differences between households with or without older persons according to this criterion of poverty, we see that the proportion is almost four times greater for the former (roughly 22% in both periods). Furthermore, the relative weight of the poor increases in both types of households in the first half of the 90's.

Breaking down households with older persons into the various types, we see that the number of poor PDU's with an *older person as head of household and relatives* drops 19,0% between 1990 and 1995, with the same occurring in PDU's comprising *older persons living alone* (down 6,2%).

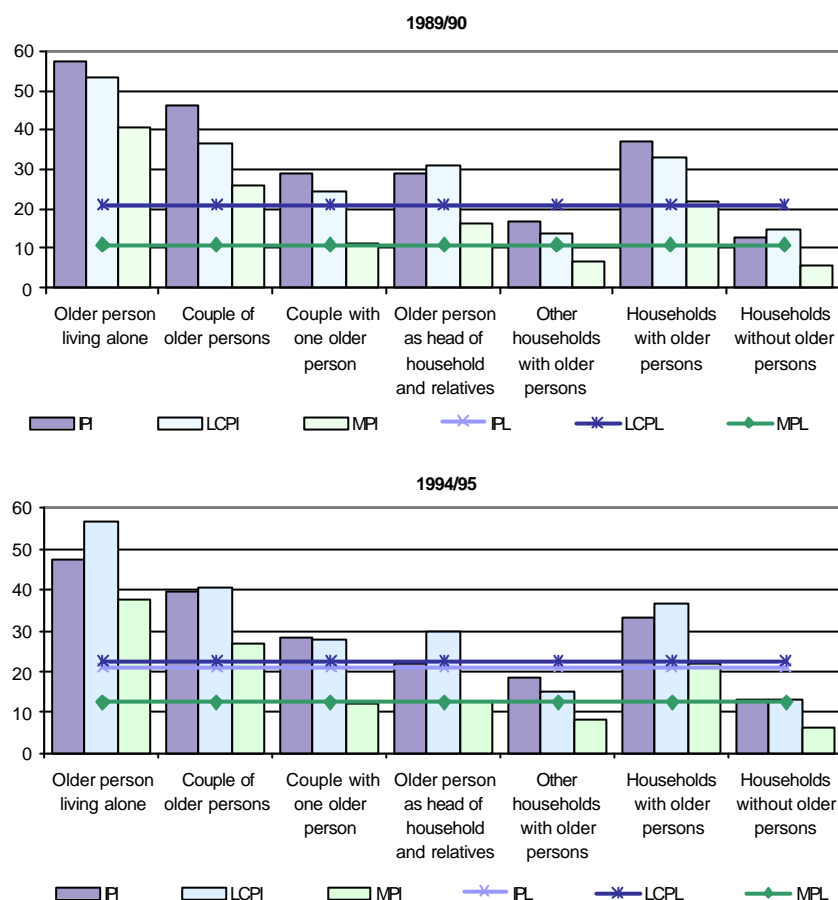
Despite the above decline, this type of households records very high percentages of multiple poor (40,4% in 1989/90 and 37,9% in 1994/95) and considerably above the poverty live set for households as a whole. Once again, households comprising *couples of older persons* are ranked next, growing from 25,8% of poor in 1989/90 to 26,9% in 1994/95.

In an attempt to better visualise the incidence of poverty between the various households, the poverty line using the three criteria established for all households in each HBS was linked to the poverty indices or rates used for this type of household with or without older persons.

Thus, what was said about households comprising older persons above becomes clear: that they are in a much less favourable situation and that, in the former group, *older persons living alone* and *couples of older persons* stand out due to the fact that the respective values exceed those found for the country as a whole and, even, when compared with other types of households with older persons.

In fact, the *other PDU's with older persons* record poverty rates below the national average, a fact which is equalled only by households without older persons.

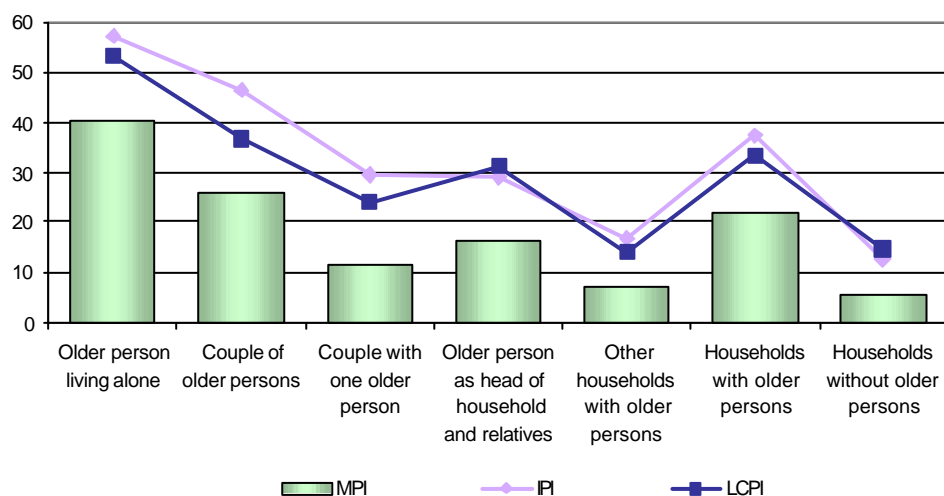
Graph 2.1 – Poverty Indexes of households with and without older persons by type of poverty (%), Portugal (1989/90 – 1994/95)



Source: INE, calculated from HBS 1989/90 and 1994/95

Another possible and equally interesting analysis is visualising “contribution” of the *Income and Living Conditions Poverty Indices* to the MPI in each one of the types of households.

Graph 2.2 – Poverty rates of households with older persons by type of poverty (%), Portugal (1989/90)

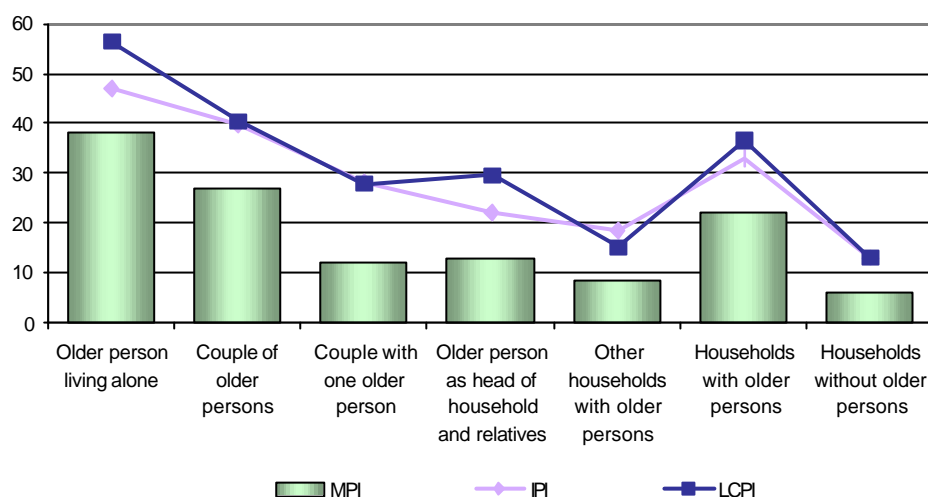


Source: INE, calculated from HBS 1989/90

Thus, we see that in 1989/90, the IPI exceeds the LCPI in every type of PDU, except in households with an *older person as head and relatives* and in PDU's without older persons. Higher IPI's are particularly significant for couples in which both spouses are older and those in which only one is older.

Graphically, this relation in 1994/95 differs greatly: the LCPI values are higher than those of the IPI, except for *couples with one older person* and *other PDU's with older persons*.

Graph 2.3 – Poverty rates of households with older persons by type of poverty (%), Portugal (1994/95)



Source: INE, calculated from HBS 1994/95

This change is a result of the decrease in the income poverty rates in almost all households with older persons and the increase in the living conditions poverty rates in almost all types of PDU's with older persons.

2.2 – Poverty Distribution

The distribution of the various types of households with older persons shows that both in 1989/90 and 1994/95, *couples of older persons* comprise more than one fourth of the total number of households with older persons, immediately followed by older persons living alone. Both recorded increases between the two periods: from 25,3% to 27,0% and from 22,8% to 24,5%, respectively.

The PDU's comprising an *older person as head of household and relatives* also recorded a slight increase between the HBS's from 20,9% to 23,3%, while the opposite was true for *other PDU's with older persons* which decreased from 19,6% to 16,2%.

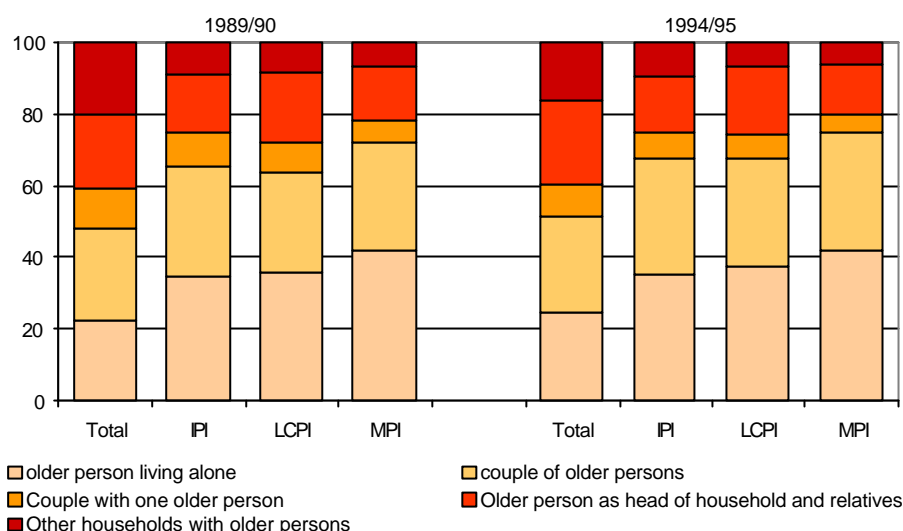
Couples comprising one person aged 65 and over recorded the lowest percentages of all PDU's with older persons, dropping from 11,3% in 1989/90 to 8,9% in 1994/95.

An analysis of poverty distribution based on various criteria and the various types of households with older persons shows that the distribution differs considerably.

Thus, *older persons living alone* are systematically the type of household contributing the greatest proportion to the total number of poor PDU's with older persons, both in terms of income (34,7% in 1989/90 and 35,0% in 1994/95), living conditions (36,3% and 37,8%) and, as a result, the multiple poverty criterion (42,2% in both periods). Even so, taking into account that this type of households rose 7,7% between the two periods, the increase in poverty was not very great, since the rates of change fell short of this increase: 0,9% in relation to the poor-income, 4,1% in terms of living conditions and no change in multiple poverty.

Since it is one of the types of households most vulnerable to poverty, older persons living alone will only be analysed in greater detail in another part of this work.

Graph 2.4 – Distribution of households with older persons by type of poverty (%), Portugal (1989/90 – 1994/95)

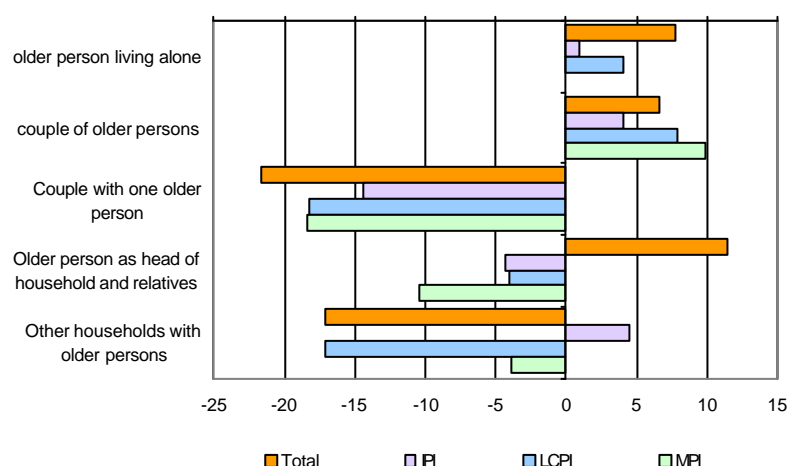


Source: INE, calculated from HBS 1989/90 and 1994/95

Couples of older persons are, as already mentioned, the second type of households with older persons most vulnerable to situations of poverty. The distribution of the various poverty indices shows that these households contribute roughly 30% to the total number of poor PDU's with older persons. Also common is the fact that the relative weight increased between the two moments in all types of poverty. Living conditions poverty is the type of poverty recording the lowest values (27,7% in 1989/90 and 29,9% in 1994/95); while income poverty in this type of households rose from 31,3% to 32,6% of the total number of poor households with older persons. On the other hand, multiple poverty increased from 30,0% to 33,0%, ranking second in 1994/95.

On the other hand, households comprising *couples with one older person* have lost relative percentage between the two HBS's and, simultaneously, in the number of poor households, in all types of poverty.

Graph 2.5 – Variation of Households with older persons by type of poverty (%), Portugal (1989/90 – 1994/95)



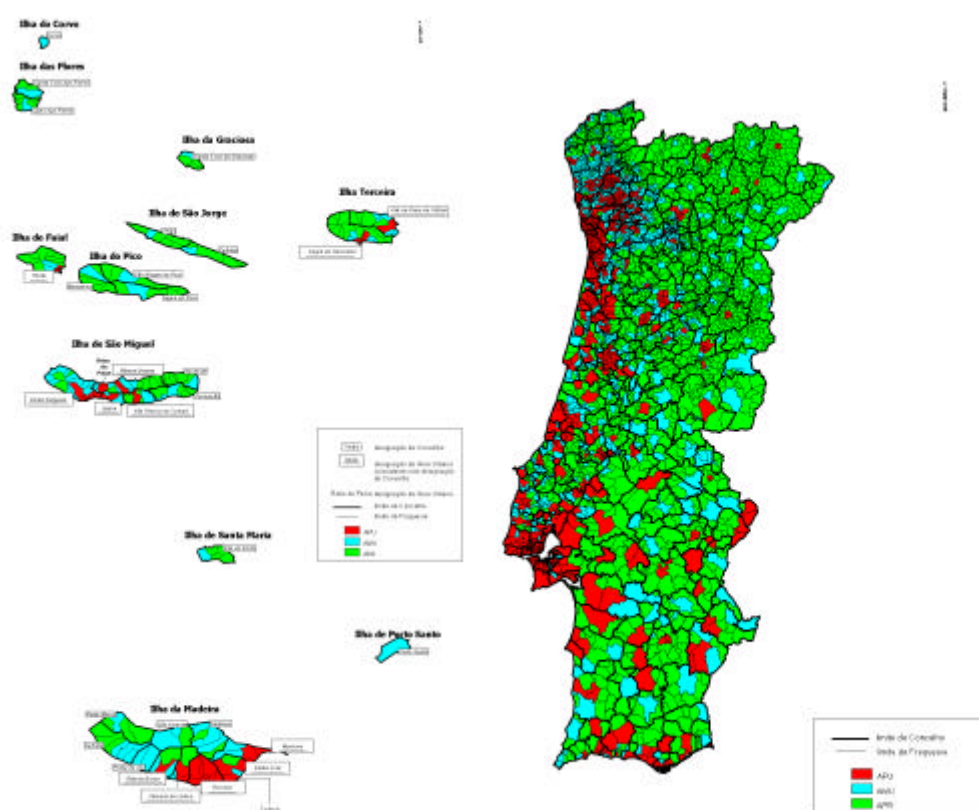
Source: INE, calculated from HBS 1989/90 and 1994/95

2.3 – Classification of Urban Areas

As already mentioned, it is presenting now an attempt to supplementing the analysis on incidence of poverty according to income, living conditions and multiple in households with older persons at a more detailed geographic level. For this purpose, we used the classification of urban areas⁹ adopted by INE in 1998.

As can be seen, more than half of the parishes in the country are considered rural (51,5%), one third are semi-urban parishes (33,0%) and 15,5% are urban parishes. Regarding the distribution of the older population in national territory, the number of households comprising older persons increased, in line with the country total, in all areas between 1990 and 1995, particularly in semi-urban areas (34,1%) and, to a lesser degree, rural areas (23,8%) and urban areas (19,6%).

Figure 1 – Distribution of parishes by classification of urban areas, Portugal



Source: INE, Cartography

Income, living conditions and multiple poverty lines, defined for the PDU's of the country total, served as the basis for identifying the poor sub-populations in these areas. However, at such a detailed level of disaggregation, it is only possible to analyse the total number of PDU's with and without older persons.

In relation to the distribution of poor households, once again, households with older persons are in a disadvantaged situation, whatever the index or period considered. The differences between households are considerable, with the greatest differences occurring in rural areas and the smallest in urban areas.

The income poverty lines in 1989/90 amounted to 15,9% in urban areas, 22,0% in semi-urban areas and 31,0% in rural areas. In the HBS of 1994/95, the poverty threshold according to this criterion dropped to 13,4% of households in the first geographic breakdown, but increases to 24,4% in the

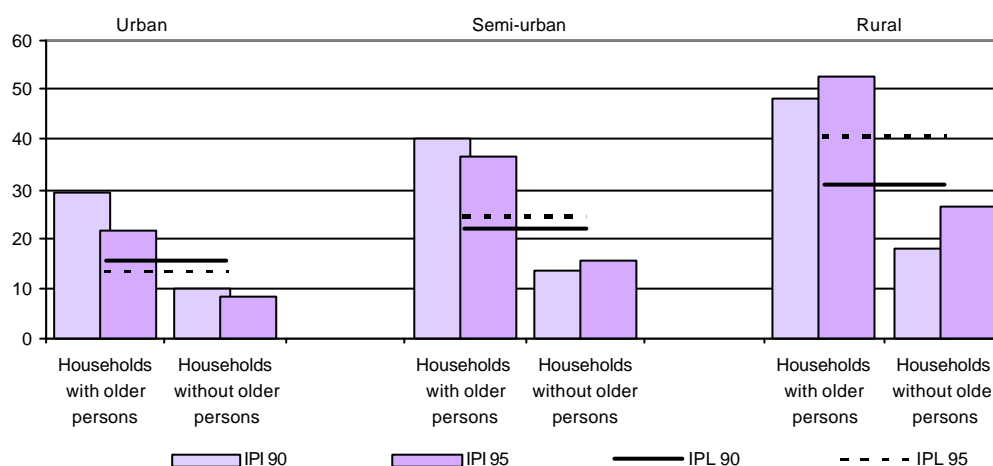
⁹ See Methodological Notes

semi-urban areas and to 40,3% in the rural areas. It should be remembered that the line set for the country total in 1989/90 was 20,9% and 21,1% for 1994/95.

Thus, it is easy to understand that the PDU's with older persons, residing in non-urban areas, particularly in rural areas, are the most vulnerable since they cumulate the two situations having the greatest incidence of poverty. These households recorded rates of 48,3% in 1989/90 and 52,8% in 1994/95 as opposed to 18,2% and 26,5%, respectively, of PDU's without older persons. In the other zones of the country, the scenario is the same and recurs in all types of poverty; poverty increases in direct proportion to the degree of rurality.

In urban zones, poverty decreased in the first half of the 90's, both in households with and without older persons, while the contrary was true of rural zones in which poverty increased in both. In semi-urban areas, it is possible to see an improvement in the situation of households comprising older persons, while in others, there is a slight increase in poverty when comparing the periods under consideration.

Graph 2.6 – Income Poverty Index in households with and without older persons by classification of urban areas (%), Portugal (1989/90 – 1994/95)



Source: INE, calculated from HBS 1989/90 and 1994/95

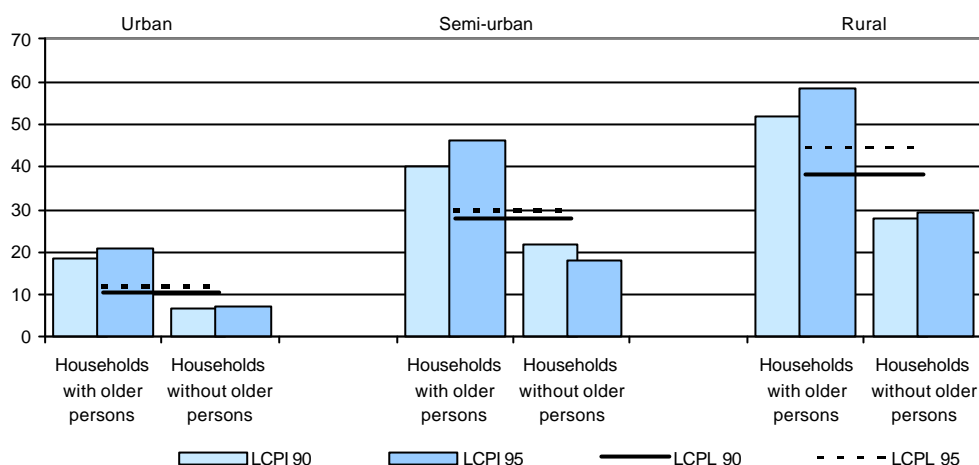
As mentioned above, living conditions poverty was the type which most affected households with older persons at the national level. There are no exceptions to this fact when breaking down the country in urban and rural areas, since the poverty indices increase in this type of households in every region.

The living conditions poverty lines increase between 1989/90 and 1994/95 in every type of household, but to a greater extent in rural households. Thus, the total number of poor households increases from 10,2% to 12,1% in urban areas, from 27,8% to 29,9% in semi-urban areas and from 38,1% to 44,7% in rural areas; in other words, almost four times more than in urban areas.

In semi-urban households, the situation changes slightly since the poverty according to this criterion increases in households with older persons, which rises from 40,3% in 1989/90 to 46,3% in 1994/95, but declines in PDU's without older persons from 22,0% to 17,8%, respectively.

In relation to the incidence of poverty according to the type of household, the greatest increase (6,2 percentage points) comes from rural areas, with the proportion of the poor in rural households comprising older persons going from 52,2% to 58,4%. As can be seen, the percentages of poor persons in urban areas are considerably lower, increasing from 18,2% to 20,9% in households with older persons and from only 6,7% to 7,2% in households without older persons.

Graph 2.7 – Living Conditions Poverty Index in households with and without older persons by classification of urban areas (%), Portugal (1989/90 – 1994/95)

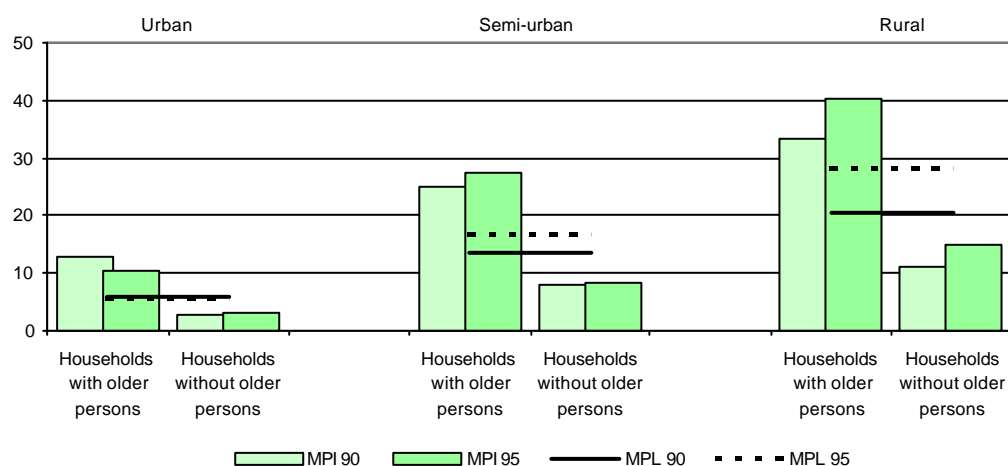


Source: INE, calculated from HBS 1989/90 and 1994/95

Regarding the multiple poverty, its development is the natural result of combining the two previous indices, having values below those. Thus, the multiple poverty line was set at 5,9% for the total number of households in 1989/90, dropping off to 5,7% in 1994/95. On the contrary, in semi-urban areas the proportion of poor households increases from 13,5% to 16,5%, during the same periods, while in rural areas the increase is significantly higher, with the total number of multiple-poor households jumping from 20,5% to 28,1%.

Thus, households with poor older persons according to the multiple poverty criterion and residing in rural areas are, once again, those which most increased between the two HBS's, rising from 33,3% to 40,3%. It should be pointed out that these values illustrate the percentage of poor households with older persons cumulating situations of poverty according to income, living conditions and household goods, some of which essential for a dignified life.

Graph 2.8 – Multiple Poverty Index in households with and without older persons by classification of urban areas (%), Portugal (1989/90 – 1994/95)



Source: INE, calculated from HBS 1989/90 and 1994/95

Poor households without older persons are, in this geographic breakdown, significantly fewer in number: 11,0% and 14,8% between 1989/90 and 1994/95.

In semi-urban areas, poor households record significantly lower values despite these values representing increases, albeit small, between the two periods. Naturally, the percentage of poor households with older persons is considerably higher, in this case roughly three times more, than households without older persons. The former increased from 25,1% to 27,6% between 1989/90 and 1994/95 and the latter from 8,1% to 8,3%, respectively.

In urban areas, multiple poverty between households without older persons recorded particularly low values when compared with other regions or with poor households comprising older persons, in general. The indices for this type of poverty between households without older persons increased very slightly from 2,8% to 3,1%. On the other hand, poor PDU's comprising older persons dropped from 12,9% to 10,3%, a decline which is probably influenced by the IPI since poverty according to living conditions always records increases between the two periods.

2.4 – Older Persons Living Alone

The households comprising older persons living alone are, as already seen, one of the most vulnerable to situations of poverty and social exclusion; the data available during the HBS makes it possible to determine certain specific indicators for this sub-population, in particular the differences between genders. Since this level of disaggregation is not representative by classification of urban areas, we shall only present an analysis for the country total.

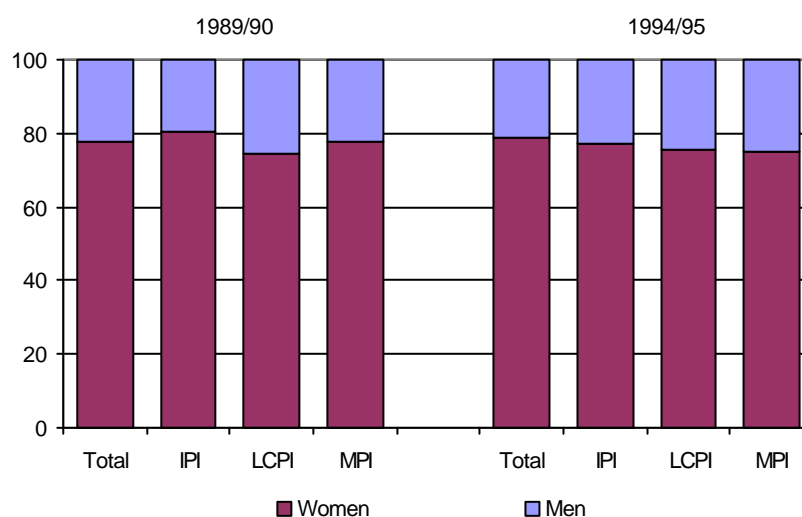
Firstly, we should underline the clearly larger proportion of women among the older population and older persons living alone. We have already pointed to the greater life expectancy of the female population to justify the larger proportion of women among the older population (they represented 57,4% of this population in 1989/90 and 56,8% in 1994/95), but this justification is particularly important in the group of older persons living alone since, generally speaking, it includes individuals aged well over 65.

As we can see, there were, in both moments, almost 4 times more women than men living under the same circumstances. This breakdown by gender naturally has a decisive impact when the analysis focuses on the poor older population according to the various indices considered. Even so and except for the 1989/90 IPI, the proportion of men among the poor older population living alone is always greater than the average of men in the older population living alone.

An analysis of the poverty indices by gender of older persons living alone enables us to draw a number of

conclusions. The first has to do with the high number in both HBS's for both genders. The lowest poverty index was recorded for women, in 1994/95, under the multiple poverty heading (36,2%). The extreme opposite was also true in 1994/95 but this time for men living in poverty according to living conditions: roughly 65 older persons living alone out of every 100 were affected by this type of poverty. Therefore, there is no doubt that we are in the presence of a group particularly affected by poverty.

Graph 2.9 – Distribution of total and poor households of older person living alone by type of poverty (%), Portugal (1989/90 – 1994/95)



Source: INE, calculated from HBS 1989/90 and 1994/95

Equally relevant is the strong incidence of multiple poverty in both genders. While it is true that the poverty incidence rates for this population group are much higher than the national averages, for both genders and for all types of poverty, this is particularly true for the situation of accumulated poverty according to income and poverty according to living conditions. In 1989/90, the multiple poverty index for older persons living alone was 4,7 times greater than the national average; for men it was 4,8 times greater. 5 years later, the situation has improved, particularly among women, with this ratio having dropped to 3,7 times. Little has changed among older men living alone since the respective poverty index is 4,6 times higher than the national average.

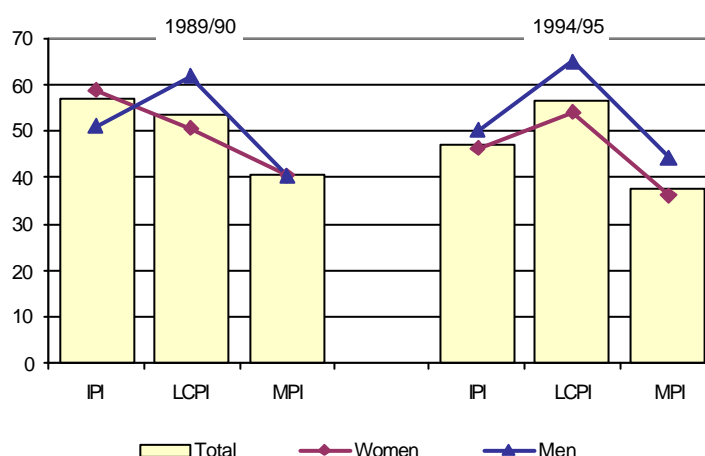
With this facts, it is obvious that we are in the presence of an extremely serious situation of poverty among the population group comprising older persons living alone. A situation without parallel among other population groups surveyed by the HBS's. Of particular note is the fact that, in 1994/95, 88,2% of older males living alone and classified as income-poor were also subject to poverty according to living conditions, a value which increased sharply since the same indicator in 1989/90 amounted to 79,7%. Among women, the situation was identical: in 1989/90, 68,8% of older persons living alone and in poverty according to income were also poor according to living conditions, while 5 years later, this percentage rose to 78,4%.

Another conclusion resulting from and adding force to the previous one is the greater generalised exposure of men to situations of poverty in this population group. This reality is obscured by the greater relative weight of women in relation to the total older population living alone, where, as we have seen, the ratio between genders is approximately 4 women to 1 man. However, when considering the two genders separately, we see that there is a greater incidence of poverty among men.

Only in 1989/90 did the situation of older women living alone record a higher poverty rate: in poverty according to income (58,7% compared to 50,8%). In 1994/95, the situation of this index had reversed, not so much because of the decline in the poverty rate among men (the rate dropped to 50,1%), but rather because of the strong decrease in the rate for women, which fell to 46,1%. Multiple poverty showed a greater gap between the poverty rates by gender: in 1989/90, the rates for older men (40,5%) and for women (40,3%) living alone were practically identical. However, 5 years on, the differential has grown due to the decline in the incidence of this type of poverty among women (it fell to 36,2%) and to its increase among men (44,2%). In other words, poverty according to income and multiple poverty evolved towards a growing gap between the two genders, with men in a clearly more alarming situation regarding the incidence of poverty.

In 1994/95, living conditions poverty recorded the highest rates for both genders of the 3 types of poverty under study. This was the only type of poverty affecting more than half (54,0%) the older women living alone that year and was also the type of poverty recording the highest value among men of the same population group (64,8%).

Graph 2.10 – Poverty rates in households of older person living alone by type of poverty (%), Portugal (1989/90 – 1994/95)



Source: INE, calculated from HBS 1989/90 and 1994/95

Conclusions

- ⇒ Demographic ageing process has accelerated in Portugal, both at the bottom of the age pyramid, with the decline in the young population (0-14 years), and at the top, with the increase in the older population (65 and over). Between 1960 and 1999, the phenomenon translated to a decrease of 35,4% of young persons and to an increase of 116,5% in older persons.
- ⇒ At the same time and based on HBS data from 1989/90 and 1994/95, the number of households with older persons increased from 33,4% to 40,6%.
- ⇒ Population ageing is occurring more rapidly among the female population due in particular to the greater expectancy of life of women. The ageing ratio in 1999 was 111,2 for women and 73,0 for men. When compared to 1960, the ratio was only 21,3 and 33,3, respectively.
- ⇒ In general, older persons have very low educational levels. The total number of older persons who had never gone to school (about 57%) together with those who had an ISCED level 1 education accounted for roughly 93% of the total older population in 1998. Women record higher levels of illiteracy than men.
- ⇒ In relation to the housing conditions, household goods and comfort they have, we see that the households with older persons record results reflecting conditions that are worse than households as a whole. Of the various types of households with older persons, households comprising *older persons living alone* and *couples of older persons* are, in this order, the ones recording the worst results. In turn, older men living alone record results placing them in a situation of disadvantage in relation to older women also living alone.
- ⇒ The establishing of poverty lines, based on different criteria, and their use in relation to the various types of households enable us to conclude that the proportion of the poor in households with older persons is systematically higher than in households without older persons, both in 1989/90 and 1994/95.
- ⇒ The IPI records a slight decline between the two HBS's in relation to households with older persons, contrary to what occurred among poor persons according to living conditions and persons affected by multiple poverty. In other words, there was a small improvement in the disposable income among households with older persons, which contrast with the deterioration of housing conditions and the owning of household goods, as compared to households without older persons. These results point to substantially different consumer spending patterns among the older and younger populations.
- ⇒ As a result, the MPI, which measures the accumulation of the two previous types of poverty, recorded an increase in the relative weight of the poor in both types of households between the two HBS's, although it is worth noting that the proportion of the multiple poor in households with older persons is almost four times more than in households without older persons.
- ⇒ In line with what occurred in the study on the housing conditions and the scarcity of household goods, households comprising *older persons living alone*, followed by *couples of older persons* record the greatest number of poor, regardless of the underlying criterion of poverty.
- ⇒ Based on the breakdown by urban and rural areas, it is possible to conclude that poverty increases proportionately to the rurality of the households. Thus, in the last analysis, the situation reflecting the greatest vulnerability to poverty in Portugal is being an older person living alone and residing in a rural zone.
- ⇒ Based on the results of the HBS, it is possible to further state that, among older persons living alone, men record higher poverty rates than women in the same situation.

Methodological Notes

I. Methodology for Calculating the Income Poverty Index

The *Income Poverty Index* (IPI) is based on the concept of total net income which includes non-monetary income and on the basis of which the poverty line is identified. The source used was the Household Budget Survey (1989/90 and 1994/95).

Below, we present a very brief description of the various operational steps leading to the formulation of the IPI.

1. Calculation of the net total income of each individual / PDU based on total wages and salaries, earned income from independent work, private income excluding earned income, pensions, other social transfers and non-monetary income such as wages in kind, self-consumption / self-supply, self-leasing and other non-monetary transfers, free of charges and at current prices.
2. Calculation and subsequent allocation to each individual of the **total net income per equivalent adult**, taking into account the modified OCDE equivalence scale applied to each household.

First adult	= 1
Remaining adults	= 0,5
Children < 14 years	= 0,3

3. Underlying the determination of the poverty line is the criterion established by EUROSTAT, setting the line at 60% of the median of the value of the total net income per equivalent adult, taking into account the distribution of the income among individuals.
4. The **value of the Index** is determined by the percentage of individuals with incomes below the limit set by the income poverty line. More specifically, IPI's are defined as poverty rates calculated on the basis of the income-poor (for ex.: poverty rate among men aged under 15 years). An identical interpretation is used for the remaining poverty indices presented below.

II. Methodology for the Calculation of the Living Conditions Poverty Index

The poverty indices based on living conditions may take on any number of forms, depending, among other factors, on the sources of the available data or on the type of society or social group under study.

The *Living Conditions Poverty Index* (IPCV) presented here includes information in particular on the lack of adequate dwelling conditions, household goods and means of transportation, with an individual or household being all the poorer the greater the lack of goods comprising the index. The source used was the Household Budget Survey (1989/90 and 1994/95).

Below, we present a very brief description of the various operational steps leading to the formulation of the LCPI.

1. **Selection of variables** based on the following criteria:

- a) The consensus test was adapted by the authors to the characteristics of the present society, taking into account the reality to study. Thus, for example, regarding types of dwelling, it was decided that a shanty would be the only type to consider when speaking of poverty, given the intrinsic characteristics thereof; in other situations, intermediate penalties were used in an attempt to distinguish various degrees of comfort (see point 2).
 - b) The frequency test, as is recommended by certain authors in this field, was considered irrelevant since the methodology used takes into account a final poverty weight grouping information from all the variables. Thus, the relative weight of the variables is proportional to its occurrence in households or individuals, that is, the contribution of a variable which is only represented in a small number of observations also has a small weight when calculating the overall weight of poverty.
- ⇒ **Variables considered common to the two HBS's:** type of dwelling; kitchen; electricity; sanitary facilities; running water; sewage system; stove; refrigerator; freezer; radio; black and white television; colour television; vacuum cleaner; washing machine; dishwasher; sewing machine; video recorder; photographic equipment; personal computer; telephone; bicycle; motorcycle; car; secondary residence *.



⇒ **Variables considered only in the HBS of 1989/90:** waste removal; heating; garage.

⇒ **Variables considered only in the HBS of 1994/95:** microwave; air conditioner; electric storage heaters; gas or other storage heaters; water heater; satellite receiver; hi-fi; CD player; tape recorder; tumble dryer; dehumidifier; camcorder; mobile phone; scooter; trailer; pleasure boat; garage in building; garage outside building.

* a penalty is assigned to the non-existence of certain goods in all the variables except for the type of accommodation in which the existence of a hut is penalised. The choice of the slum as the only type of accommodation associated with poverty is due to the type of construction and to the materials used therein.

2. Assign penalty weightings and the construction of an equivalence table for the variables used in both HBS's – 1989/90 and 1994/95. **1** (total penalty), **0,5** (partial penalty) * and **0** (no penalty)

* the partial penalty is only used for sanitary facilities (does not have =1; has incomplete =0,5; has complete =0) and running water in the 1994/95 HBS (does not have =1; has cold =0,5; has hot =0)

3. Recoding the variables in the previous weightings and calculating the respective frequencies.

4. Weighting of the variables to include in the score by the respective non-poverty frequencies. The score assigned to each PDU/individual thus includes the accumulated penalties for each missing good, adjusted for the respective weight determined by society via a non-poverty frequency.

5. Adding up the individual score. The larger the number of variables that the PDU/individual has, the smaller the degree of poverty and vice-versa.

6. Calculation: establishing a hierarchy of the observations of the PDU/individuals by degree of poverty and determining the percentiles.

7. The criterion chosen to determine the poverty line consisted of selecting a sub-population with a size very near that of the one identified as poor by the Poverty Index according to Income.

III. Methodology used in Calculating the Multiple Poverty Index

The *Multiple Poverty Index* (MPI) is the result of the accumulation of the two types of poverty previously presented in each PDU/individual.

The use of this measure of poverty is justified both by the multi-dimensional analysis used in this work and by the help it provides in the study of poverty trends in certain sub-populations.

IV. Classification of urban areas adopted by INE in 1998:

The classification consists of three levels

- Predominantly Urban Areas (APU) comprising urban parishes; semi-urban parishes adjacent to the urban parishes, included in the urban area, according to functionality/planning guidelines and criteria; semi-urban parishes consisting in themselves of predominantly urban areas according to functionality/planning guidelines and criteria; parishes-County seats with a resident population greater than 5,000 inhabitants.
- Medially Urban Areas (AMU)
- Predominantly Rural Areas (APR) covering all remaining cases.

For this purpose, urban parishes are considered as having a population density greater than 500 inhabitants/Km² or which include a place with a resident population greater than or equal to 5,000 inhabitants; and semi-urban parishes as having a population density greater than 100 inhabitants/Km² and less than or equal to 500 inhabitants/Km², or which include a place with a resident population greater than or equal to 2,000 inhabitants and less than 5,000 inhabitants. The parishes considered in this classification are only those existing at the time of the 1991 Census, due to the fact that the Censuses are the primary source of information for the entire urban classification study and because there is no up-to-date demographic information at the parish level.

Bibliography

- ALMEIDA, João Ferreira; CAPUCHA, Luís Antunes; COSTA, António Firmino da; MACHADO, Fernando Luís; NICOLAU, Isabel; REIS, Elizabeth (1992) "Exclusão Social: Factores e Tipos de Pobreza em Portugal", Celta Editora, Oeiras.
- BRANCO, Rui (2000), "Non-monetary Poverty Measures", Instituto Nacional de Estatística, Seminar on International Comparisons of Poverty, Bratislava, 5-6 June 2000, Session 1: Measuring Poverty; comparative studies in France and in Central Europe.
- BRANCO, Rui, GONÇALVES, Cristina (2000) "Envelhecimento Demográfico – Aspectos Demográficos, Económicos e Sociais da População Idosa em Portugal", Instituto Nacional de Estatística, I Congresso Português de Demografia, org. ISCTE/INESLA, Tróia, Grândola, 21-23 Setembro, Sessão Plenária: População e Envelhecimento.
- COSTA, A. Bruto da (1993), "Pobres Idosos" in Estudos Demográficos nº 31, Instituto Nacional de Estatística - Gabinete de Estudos Demográficos, Lisboa.
- COSTA, A. Bruto da (1998), "Exclusões Sociais" Cadernos Democráticos, colecção Fracturas nº 2, Lisboa.
- FLEURBAEY, Herpin, MATINEZ, Verger (1998) "Can poverty be measured?", Studies nº 21, November 1998, INSEE.
- INE (1992), "Inquérito aos Orçamentos Familiares 1989/1990", Instituto Nacional de Estatística, Lisboa.
- INE (1992), "Metodologia do Inquérito aos Orçamentos Familiares 1989/1990", Série Estudos nº 62, Instituto Nacional de Estatística, Lisboa.
- INE (1997), "Inquérito aos Orçamentos Familiares: Metodologia 1994/1995", Série Estudos nº 74, Instituto Nacional de Estatística – Dep. Estatísticas Sócio-Económicas, Lisboa.
- INE (1997), "Inquérito aos Orçamentos Familiares: Resultados 1994/1995", Instituto Nacional de Estatística - Dep. Estatísticas Sócio-Económicas, Lisboa.
- INE (1999), "As Gerações Mais Idosas", Série Estudos nº 83, Instituto Nacional de Estatística - Gabinete de Estudos e Conjuntura, Lisboa.
- LOLLIVIER, S., VERGER, D. (1997a) "Condition de vie - Pauvreté d'existence, monétaire ou subjective sont distinctes" (or "Living-Conditions Poverty, Resources Poverty, and Subjective Poverty are Distinct") Économie et Statistique N°308-309-310, INSEE. URL: <http://www.insee.fr/va/produits/pub/studies/artis/is027.htm>
- LOLLIVIER, S., VERGER, D. (1997b) "Une approche de la pauvreté par les conditions de vie", F 9701, INSEE.
- SOARES, Regina; D'UVA, Teresa Bago (2000), "Income, Inequality and Poverty", Instituto Nacional de Estatística, Seminar on International Comparisons of Poverty, Bratislava, 5-6 June 2000, Session 2: Analysis of Poverty in Europe.
- VERGER, Daniel (2000), "Les Mesures de la Pauvreté – Trois types d'approche: Approches monétaire, en termes de conditions de vie et subjective. Les résultats français", INSEE, Seminar on International Comparisons of Poverty, Bratislava, 5-6 June 2000.
- VERGER, Daniel (2000), "Ressources disponibles et Consommation des familles modestes: la multiplicité des approches de la pauvreté", INSEE, Seminar on International Comparisons of Poverty, Bratislava, 5-6 June 2000.