POVERTY AND INCOME OF OLDER PEOPLE IN OECD COUNTRIES

Asghar Zaidi[*]

1 Introduction

Two considerations impinge on the issue of what constitutes adequacy of pension income. How does the income of the current generation of older people fare in comparison to that of the current generation of working age population? And, how do older people fare in retirement in comparison to their living standards during working lives? Regarding the former consideration, two indicators that can be reliably measured are used in this paper: *relative poverty* and *relative income* of older people. For the latter consideration, the indicators of prospective replacement rates of workers who enter into labour force during 2004 are derived using micro-simulation analysis, and they are presented and analysed in detail elsewhere (see, e.g., Martin and Whitehouse, 2008; Queisser and Whitehouse, 2007).

The other critical issue is what constitutes poverty? For the purpose of international comparisons across developed countries, poverty is almost always a relative concept. A widely accepted measurement approach is to use household income as the measure of well-being, to "equivalise" household income for differences in household size and define the poverty threshold as one-half of national median household income. This approach is adopted in OECD's recent report on poverty and inequality *Growing Unequal?* (OECD, 2008). Under this approach, people are considered poor if they live in households whose equivalised disposable income is less than 50 per cent of the national median disposable income.

For the purpose of a good interpretation of results presented in this paper, two important implications of the measurement approach need to be kept in mind:

- poverty thresholds in use are country-specific as they use the national median income as its basis. Thus, the purchasing power of these poverty lines differs across countries, with the implication that some poor persons will be better off in one country than some non-poor persons in another country;
- poverty rates among older people for some countries will be high because the income of their working age populations have observed an unprecedented growth in the recent past. This situation arises in particular for Ireland and Spain in the recent past.

The Annex provides further discussion on the measurement methods used, their strengths and limitations, and differences in the poverty thresholds across countries. These issues are discussed at a greater length in Zaidi (2008).

The paper makes use of data available in the OECD Income Distribution Database – itself the basis of OECD (2008). The discussion below is presented in five parts. *First*, results on patterns of poverty among older people are analysed. *Second*, income of older people, levels relative to the rest of the population and its composition, are analysed. *Third*, the distributional role of public pension benefits and taxes is investigated. *Fourth*, the analysis included explores the impact of

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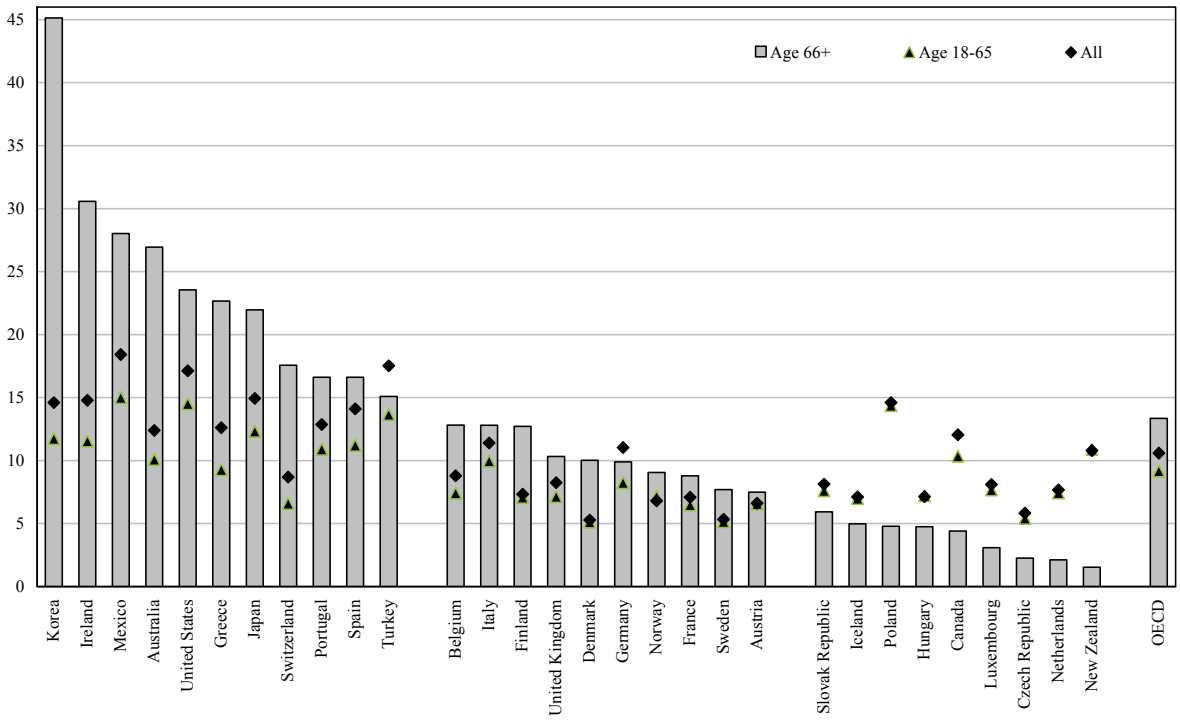
Figure 1

Poverty Rates among People of Retirement Age, Working Age and the Total Population, Mid-2000s



Note: Poverty rates are defined as the proportion of individuals with disposable income less than 50 per cent of the national median. Countries are ranked, from left to right, in increasing order of income poverty rates of people of retirement age. The income concept used is that of household disposable income adjusted for household size.
Source: Computations from OECD Income Distribution Questionnaire.

recent pension reforms on the future value of pension entitlements. *Finally*, some recommendations are made in view of conclusions drawn from this paper.

2 Patterns of poverty among older people in OECD countries

2.1 Key findings on older people poverty

Using the definitions mentioned above, results for the years around 2005 show that about 13 per cent of all older people in OECD countries are counted as "poor". In the context of this study, an older person is someone who is aged 66 or more, for the fact that these people have reached the most usual statutory retirement age of 65 as observed across many OECD countries.

Figure 1 highlights the variations observed across countries. Results are brought together so as to allow the poverty rates for three population groups – older people, working age people and the overall population – to be presented and contrasted. The country-by-country variations observed are broadly captured by the following three groupings of countries:

- *low poverty rates (<6 per cent):* Nine countries fall in this category: the Slovak Republic, Iceland, Poland, Hungary, Canada, Luxembourg, the Czech Republic, the Netherlands and New Zealand;

- *lower-than-average poverty rates (between 7-13 per cent):* Ten other countries show older person poverty rates lower than the OECD average of 13.3 per cent: Belgium, Italy, Finland, the United Kingdom, Denmark, Germany, Norway, France, Sweden and Austria;
- *higher-than-average poverty rates (>15 per cent):* This cluster of countries has 11 countries, with Korea standing out among the OECD countries with the highest poverty rate for older people (45 per cent). Other countries with a higher-than-average poverty rate for older people are Ireland (30.6 per cent), Mexico (28 per cent), Australia (26.9 per cent), the United States (23.6 per cent), Greece (22.7 per cent), Japan (22 per cent), Switzerland (17.6 per cent), Portugal (16.6 per cent), Spain (16.6 per cent) and Turkey (15.1 per cent).

In countries with higher-than-average poverty rates among older people, the corresponding rates for the working age population (age 18-65) are considerably lower. For example, working age poverty rates in Korea, Ireland, Australia, Greece and Switzerland are less than half of poverty rates observed for older people. In contrast, in countries where older people poverty rates are low, the poverty rates for working age people are generally higher. This result is observed in particular for Poland and New Zealand. Among many of the countries with high poverty rates for older persons, a gap of notable magnitude is observed in the poverty rates between these two age groups. The differential is highest in Korea, in excess of 30 percentage points, followed by five other countries (Ireland, Australia, Greece, Mexico and Switzerland) where it is in excess of 10 percentage points.

Other perspectives on the profile of older people poverty are dealt with by the data available in the OECD Income Distribution Survey, and the following analytical questions are relevant:

- how do poverty rates differ across older men and women?
- how do the younger cohorts of older persons (aged 66-74) fare in comparison to the oldest cohorts (75 or more)?
- what is the impact on the poverty rate for older households with someone in the household working?
- how do different living arrangements of older households, specifically living as a single person or a couple, affect poverty rates?
- what are the underlying trends in the poverty rate for older persons?

These issues are addressed in more detail in the rest of this section.

2.2 The gender dimension

The different experiences of poverty for older men and women are captured by Figures 2a and 2b. The following patterns emerge from these results:

- older women in general have a much higher poverty rate compared to older men. On average, older women have a poverty rate of about 15 per cent as compared to older men poverty rate of about 10 per cent (see Figure 2a). The exception to this result is observed only in four countries with low overall poverty rates for older persons (New Zealand, the Netherlands, Luxembourg, and Iceland);
- the above result is all the more striking when they are compared with the corresponding poverty rates for the equivalent working age cohorts. Female poverty rates are in most cases broadly equivalent with those of the males (see Figure 2b). Obviously, the two groups of men and women belong to different generations, but it also reflects the fact that the relative risk of poverty for older women increases in their old age.

Partly mirroring the above results is the fact that the oldest age cohorts, aged 75+, have a higher poverty rate than those aged 65-74. This is principally because women dominate the oldest

Figure 2a

Poverty Rates across Men and Women of Retirement Age, Mid-2000s

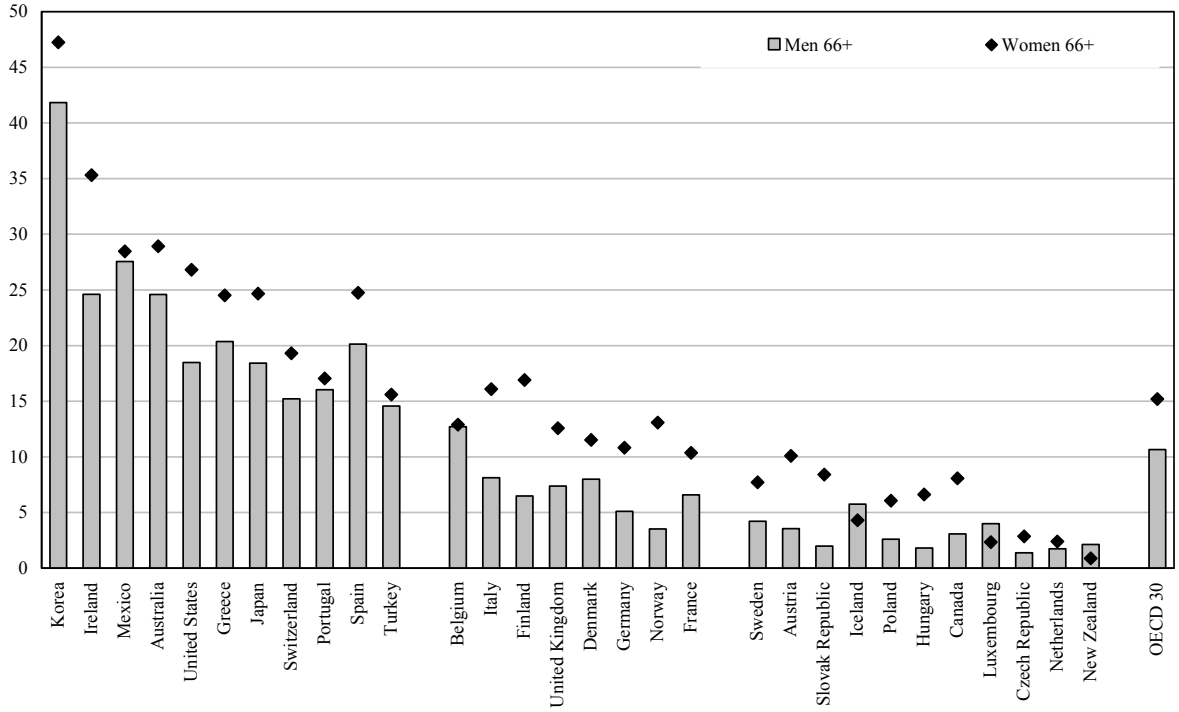
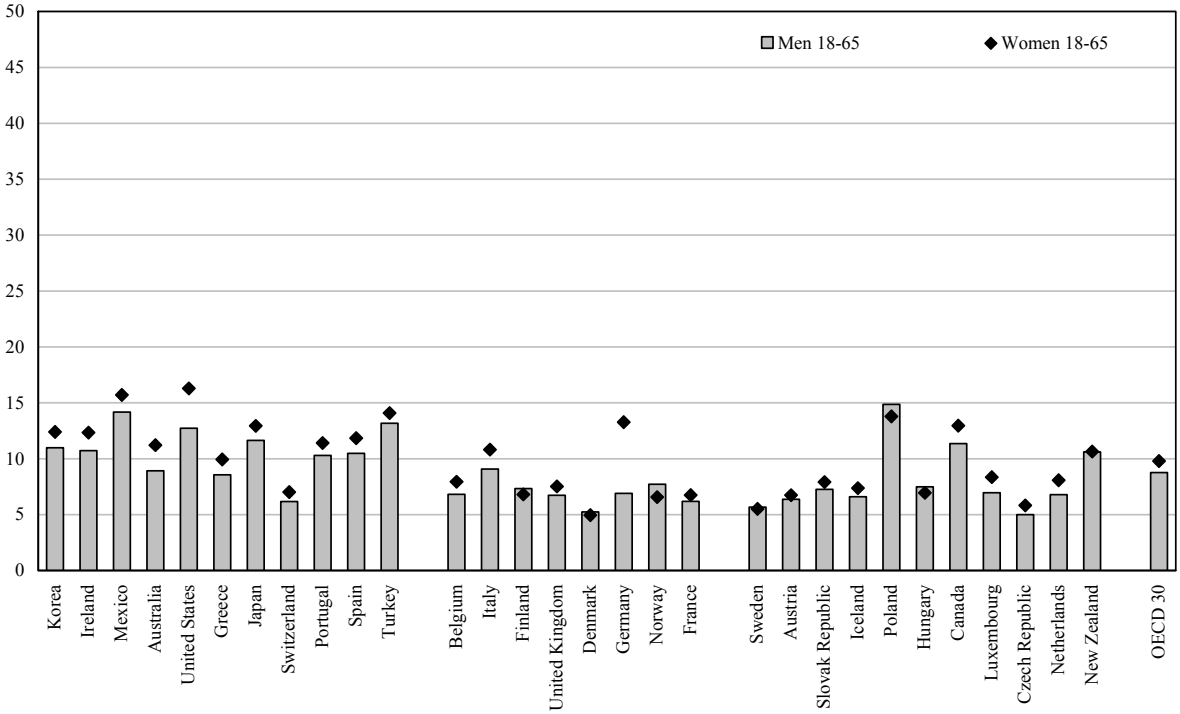


Figure 2b

Poverty Rates across Men and Women of Working Age, Mid-2000s



age cohort, as – on average – women live longer than men. Another compositional effect, contrasting in nature, arises because richer people tend to live longer than poorer people.[1]

Further analysis between older men and women within each of the two age cohorts draws attention to the result that older women in the age group of 75+ stand out as the poorest subgroup (see Figure 3a and 3b). On average, almost 18 per cent of all women aged 75+ have a risk of falling in poverty. In the majority of countries with higher-than-average poverty rates for older persons, the risk for poverty for the oldest women cohort is strikingly high (in excess of 25 per cent).

2.3 The impact of earnings and living arrangements on older people poverty

Many OECD countries now offer pension income bonuses to those who delay their retirement and continue to work beyond the statutory retirement age. Although the opportunities of older people to adjust their labour supply behaviour may be restricted for the reasons of seniority wages and employers' age discrimination (see OECD 2006), it is nonetheless useful to analyse how the poverty risk of older people is affected when they are able to work beyond the retirement age.

The living arrangements dimension of households is also an important dimension in determining income. Couple households benefit from pooling and sharing their pension income resources and also enjoy economies of scale. However, their lives are affected by events common to old age, such as widowhood, and this has a detrimental impact on income, which varies across countries depending upon the systems of social insurance and social assistance provision. Thus, it is of importance to analyse how households with different living arrangements fare in terms of risks of poverty in old age.

In many OECD countries, the effective retirement age has been rising (approximating one year for women and almost half year for men during the decade ending in 2007). Nevertheless, at 27 per cent, the share of elderly people who work (or live with persons who work) has remained remarkably stable over the past ten years. Where members of such older households continue to work, the poverty rates are much lower. On average, across the OECD, poverty rate is 7 per cent when someone in older households works as opposed to 17 per cent for others (see Table 1). The decrease in poverty due to the working status a household member is most noticeable in Australia, France, Germany, Greece, Ireland, Italy, Norway, Portugal and the United Kingdom. The effect on the poverty rate is lower in Austria, Finland, the Netherlands, New Zealand and Poland. Turkey offers the only exception where non-working older households have lower poverty rates than working ones.

Different living arrangements also affect the poverty rates of older people. Two broad categories are covered here: (a) older persons living alone as single persons, and (b) older persons living as a couple. Older persons living alone – very often widowed women – face a much higher risk of falling into poverty than older persons living as a couple (see Table 1). However, during the decade spanning the mid-1990s and mid-2000s, in many OECD countries the poverty rates for single elderly persons have declined more than the equivalent rates for older couples. This decline in the poverty rates for single elderly persons is most notable in the Czech Republic (–19.1 percentage points), followed by Norway (–13.8) and Austria (–11.6). A contrasting result is obtained for seven countries, in particular for Spain and Finland where poverty rates for the single elderly persons increased considerably during the same period, by 32.7 and 12.5 percentage points respectively.

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[1] See Whitehouse and Zaidi (2008) for a survey of the literature and new evidence on socio-economic differences in mortality of older people in Germany, the United Kingdom and the United States.

Figure 3a

Poverty Rates among Men and Women for the Age Group 66-74, Mid-2000s

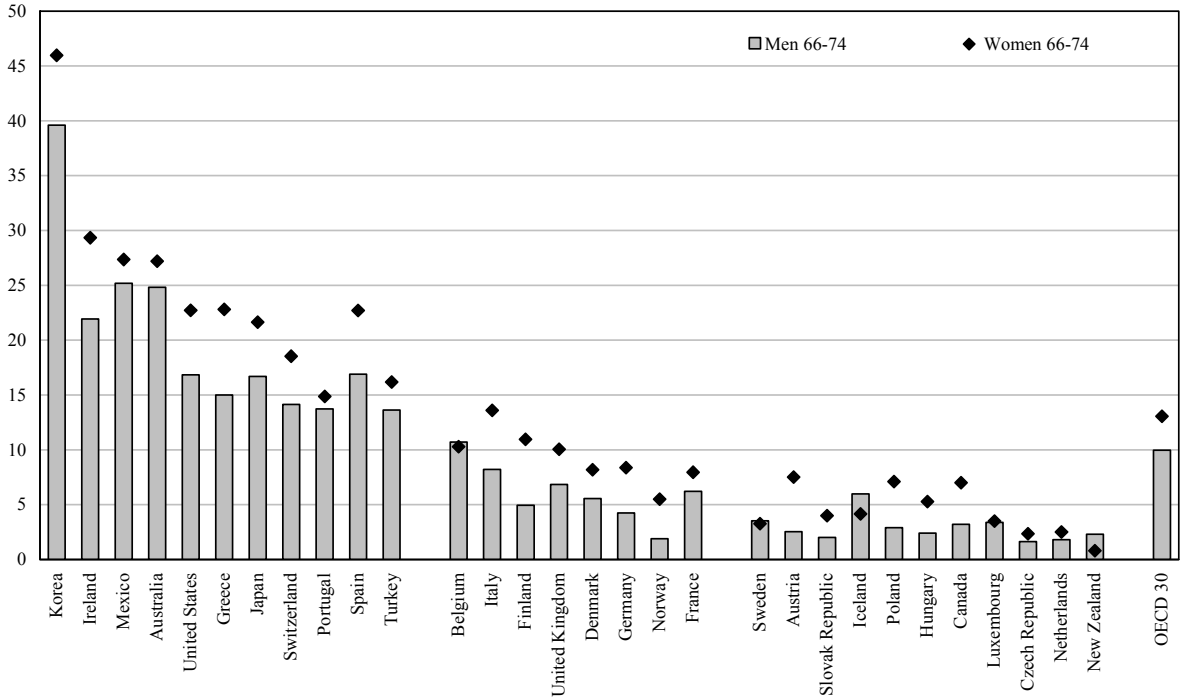


Figure 3b

Poverty Rates among Men and Women for the Age Group 75 and over, Mid-2000s

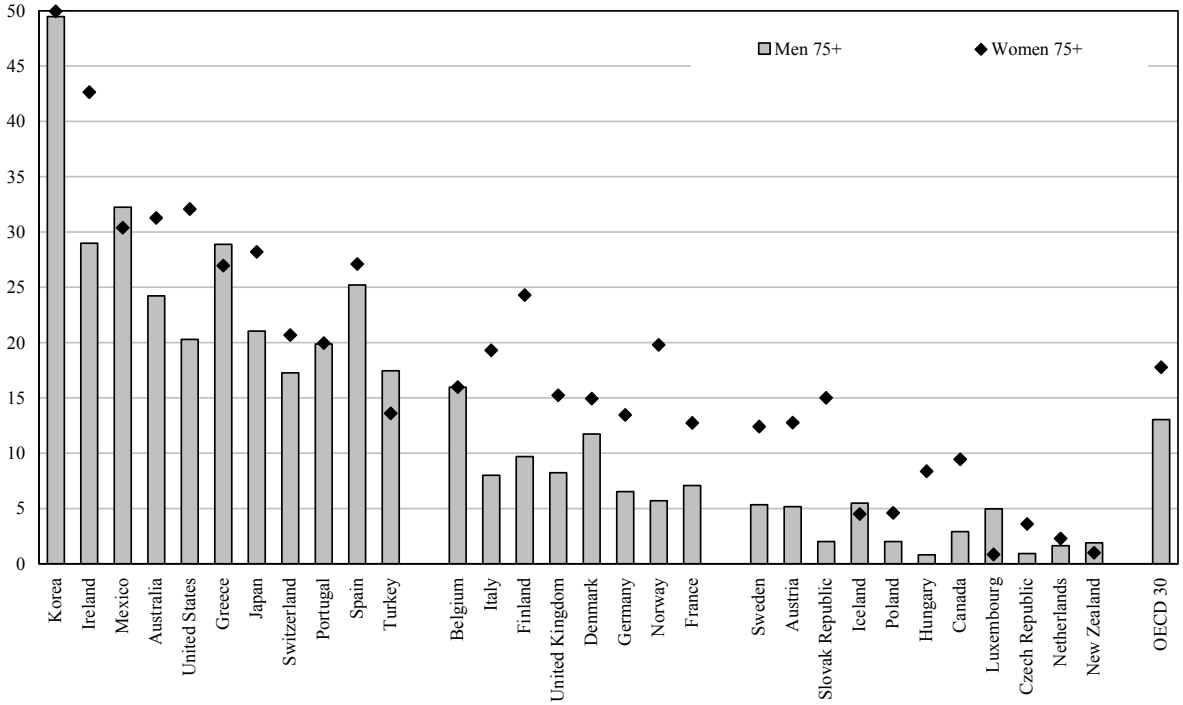


Table 1

Poverty among People of Retirement Age and in Households with a Head of Retirement Age, Subdivided by Working Status of Members and by Household Type, Mid-2000s and Point Change since Mid-1990s

Country	Poverty Among People of Retirement Age		Poverty in Households with a Head of Retirement Age									
			All		Working		Not Working		Singles		Couples	
	Mid-2000s	Point Changes since mid-1990s	Mid-2000s	Point Change since mid-1990s	Mid-2000s	Point Change since mid-1990s	Mid-2000s	Point Change since mid-1990s	Mid-2000s	Point Change since mid-1990s	Mid-2000s	Point Change since mid-1990s
Australia	27	4.6	27	5.6	4	3.2	32	5.4	50	–4.8	18	9.8
Austria	7	–5.7	8	–6.0	7	5.3	9	–7.6	16	–11.6	4	0.2
Belgium	13	–3.5	12	–2.3	4	–0.6	13	–3.7	17	–6.8	10	0.1
Canada	4	1.5	7	3.2	2	0.7	10	4.8	16	7.3	4	1.8
Czech Republic	2	–6.5	3	–5.8	[..]	[..]	3	–6.2	6	–19.1	2	0.5
Denmark	10	–2.1	10	–2.2	2	0.6	12	–2.3	17	–4.4	4	0.3
Finland	13	5.3	14	5.9	11	7.7	14	5.5	28	12.5	4	2.3
France	9	–3.0	9	–2.1	1	–5.9	9	–1.4	16	0.2	4	–2.4
Germany	10	–0.6	8	–1.6	2	–4.7	9	–1.2	15	0.2	5	–1.8
Greece	23	–6.6	21	–7.0	7	–10.5	31	–3.1	34	–4.5	18	–7.1
Hungary	5	–2.5	5	–2.9	[..]	[..]	5	–5.2	11	–6.9	1	–2.7
Iceland	5	..	5	..	3	..	7	..	10	..	2	..
Ireland	31	18.8	25	..	5	..	36	..	65	..	9	..
Italy	13	–2.3	13	–2.1	3	0.4	17	–4.5	25	–7.5	9	–1.2
Japan	22	–1.0	21	–1.1	13	–1.8	30	–7.6	48	–7.9	17	–1.5
Korea	45	..	49	..	35	..	69	..	77	..	41	..
Luxembourg	3	–1.8	3	–1.6	[..]	[..]	4	–5.4	4	–5.6	3	–6.4
Mexico	28	–4.6	23	–8.6	19	–9.1	39	–7.9	45	–5.9	21	–9.2
Netherlands	2	0.9	2	0.8	2	1.1	2	0.7	3	–0.1	2	1.3
New Zealand	2	0.2	4	2.5	1	–3.8	2	1.6	3	2.1	1	–0.1
Norway	9	–6.8	9	–7.1	1	–1.1	10	–7.9	20	–13.8	1	–2.1
Poland	5	..	6	..	6	..	6	..	6	..	6	..
Portugal	17	–1.1	20	–2.2	5	–4.6	25	–1.0	35	–4.8	16	–2.0
Slovak Republic	6	..	4	..	[..]	[..]	7	..	10	..	3	..
Spain	17	–1.1	27	16.8	12	–4.3	32	23.3	39	32.7	24	12.6
Sweden	8	4	6	2.7	3	1.1	7	3.2	13	5.8	1	0.5
Switzerland	18	4.3	18	–1.8	[..]	[..]	[..]	[..]	24	6.1	15	3.4
Turkey	15	–8.1	18	–4.1	20	0.6	16	–16.4	38	–6.2	17	–4.0
United Kingdom	10	–2.1	10	–0.8	1	0.1	12	–2.5	17	–0.9	7	–1.3
United States	24	2.9	24	3.2	9	1.4	34	5	41	3	17	3.2
OECD	13	–0.7	14	–0.7	7	–1.2	17	–1.4	25	–1.6	9	–0.4

Note: Poverty definition is the same as described for Figure 1. Data for mid-2000s refer to around 2000 for Japan and Switzerland. Data for changes refer to the period from the mid-1990s to around 2000 for Austria, Belgium, Czech Republic, Denmark, France, Ireland, Portugal and Spain (where 2005 data, based on EU-SILC, are not comparable with those for earlier years).
[..] indicates that the sample size is too small.
Source: OECD (2008).

Poverty differences between single elderly persons and elderly couples are most notable in Ireland: a full 56 percentage points separates the poverty experience of single elderly persons and elderly couples. Korea, Australia, and Japan show a poverty differential in excess of 30 points. Mexico, the United States, Finland, Turkey, Portugal and Norway had differences in the 19-24 point range. Note that the above countries are generally those with higher-than-average poverty rate for older people (see Section 2.1 above). In contrast, countries with relatively low levels of overall poverty rate for older people show smaller differences in the poverty rates for single elderly persons and elderly couples. This is observed particularly in Poland, the Netherlands and Luxembourg.

2.4 Trends in older people poverty

The rate of poverty increase or decrease for older persons over time clearly adds important detail to the body of knowledge on the poverty risk of older persons. The OECD Income Distribution Database provides information on longer term trends (since the mid-1970s) for seven countries: Canada, Finland, Greece, the Netherlands, Sweden, the United Kingdom and the United States. Results for other 23 OECD countries are available for a somewhat shorter period: since mid-1980s.

There is a growing body of evidence that suggests that older people poverty rates in OECD countries contrast favourably with those for younger age groups. This result is summarised in Figure 4, which provides poverty rates for seven age groups (from the age group "below 18" to the age group "above 75") as a proportion of the poverty rate for the entire population. These results provided for time periods for which data are available.

- On average – across the 23 OECD countries covered by the left-hand panel of Figure 4 – the poverty rates of people aged 75 and over has fallen from a level almost twice as high as that of the population average in the mid-1980s to 1.5 times by the mid-2000s. For people aged 66 to 74 this risk is now lower than for children and young adults.
- Results for a smaller number of OECD countries, as shown by the right-hand panel of Figure 4, indicate that the reduction of relative poverty rates for elderly people is even larger when looking at changes since the mid-1970s.
- In general, poverty rates for all age groups above 50 have declined, while those for people below that age have risen. By mid-2000s, children and young adults had poverty rates about 25 per cent above the population average, while they were close to and below that average, respectively, 20 years ago.[2]

Figure 5 highlights the differences across country experiences for trends in poverty rates for older persons during two periods: between mid-1980s and mid-1990s (the left panel) and between mid-1990s and mid-2000s (the centre panel). The findings can be summarised as:

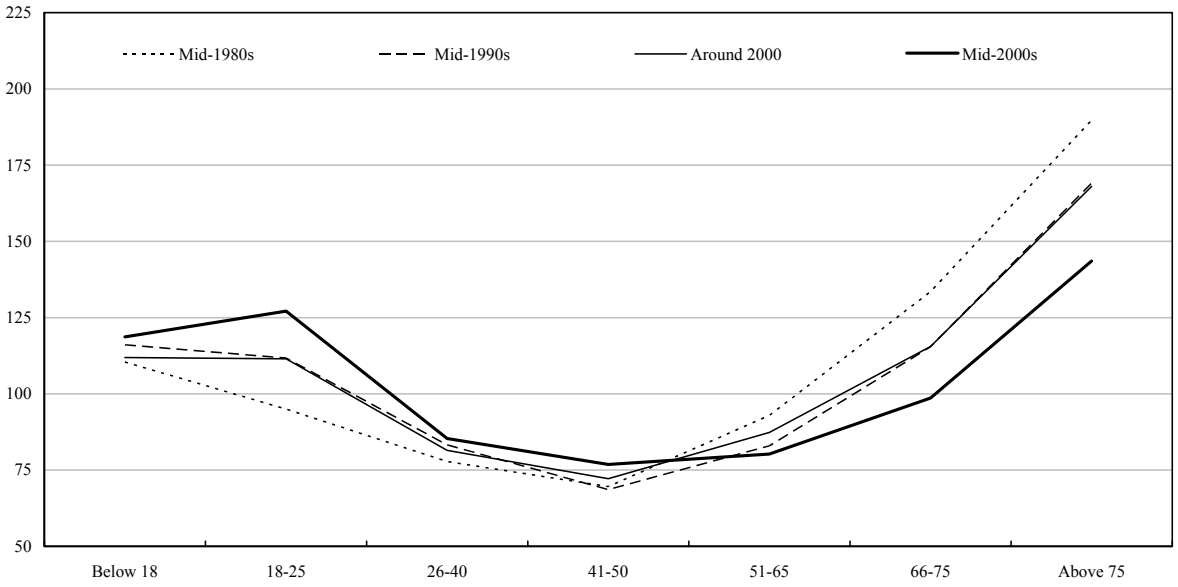
- from the mid-1980s to the mid-1990s, the un-weighted average of older people poverty rates across 24 OECD countries decreased by 0.2 percentage points. Canada, Denmark and Luxembourg observed larger decreases in poverty (5-8 points), while in Ireland and Mexico older people poverty rates increased by 10.9 and 4.6 points respectively;
- in the decade from the mid-1990s to the mid-2000s, poverty rates for older people decreased again in a majority of countries, with the average rate across 24 OECD countries declined again by 0.7 points. In six countries – Austria, the Czech Republic, Greece, Mexico, Norway and

[2] In some countries, however, the opposite pattern prevails. In particular, the poverty rate of children and/or young adults fell during the most recent decade in Australia, Spain and the United States while that of elderly people increased.

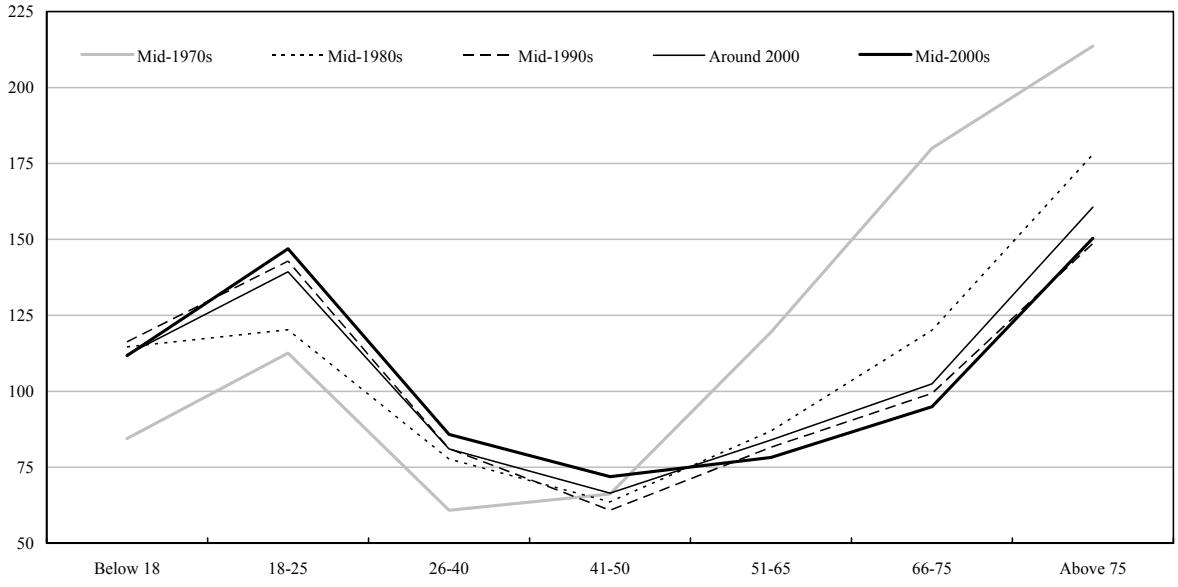
Figure 4

Risk of Relative Poverty by Age of Individuals, Mid-1970s to Mid-2000s, OECD Average
(poverty rate of the entire population in each year = 100)

23 OECD Countries



7 OECD Countries

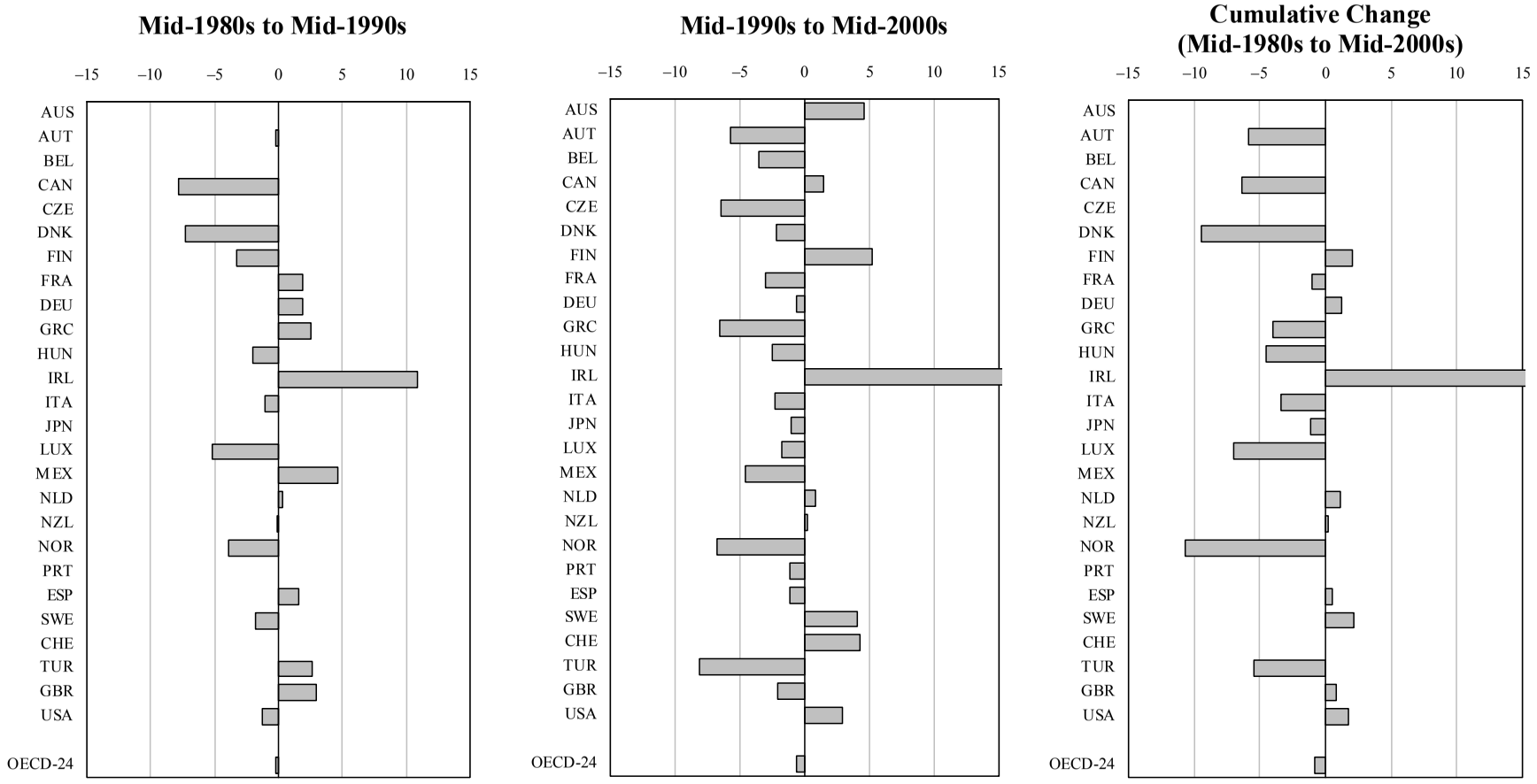


Note: Relative poverty risk is the age-specific poverty rate divided by the poverty rate for the entire population times 100. The poverty definition is the same as used for Figure 1. OECD-7 is the average for Canada, Finland, Greece, the Netherlands, Sweden, the United Kingdom and the United States, and OECD-23 is the average poverty rates across all the remaining OECD countries Data for mid-1980s refer to around 1990 for the Czech Republic, Hungary and Portugal; those for mid-2000s refer to 2000 for Austria, Belgium, the Czech Republic, Ireland, Portugal and Spain (where 2005 data, based on EU-SILC, are not comparable with those for earlier years).
Source: OECD (2008).

Figure 5

Trends in Poverty Rates among Older People (Age 66+)

(point changes in income poverty rate at 50 per cent median level over different time periods)



Note: Data in the first panel refer to changes in the poverty rate from around 1990 to mid-1990s for Czech Republic, Hungary and Portugal; no data are available for Australia and Switzerland. Data in the second panel refer to changes from the mid-1990s to around 2000 for Austria, Belgium, Czech Republic, Ireland, Portugal and Spain (where 2005 data, based on EU-SILC, are not comparable with those for earlier years); and to changes from 2000 to 2005 for Switzerland. OECD-24 refers to the simple average of OECD countries with data spanning the entire period (all countries shown above except Australia and Switzerland).

Source: OECD (2008).

Turkey – the decrease in poverty was particularly pronounced (at 5+ points), while sizeable poverty increases were recorded in Australia, Finland, Sweden, Switzerland and particularly in Ireland;

- for Norway, the decline in the poverty rate is a continuation of a trend from the previous period, whereas for Mexico the decline in this later period offsets the increase observed in the previous period;
- only seven countries observed a significant rise in older people poverty during this period. The most notable among them is Ireland: the poverty for older people rose by a large 18.8 points, making the cumulative change between mid-1980s and mid-2000s close to 30 percentage points.

3 Pension income patterns

3.1 Income patterns across age groups and household types

This section describes how average income varies across age groups and across different types of household. Average disposable income varies with the age of individuals in very similar ways across OECD countries (see Figure 6 for results in a selected group of countries). In all countries, average income rises with age until the end of working life and then declines, although there are differences across countries in the age at which the highest level is reached.

Similar results are observed when looking at people living in different household types that are a reflection of different life cycle stages (see Figure 7). Average income rises when comparing single-parent households to single working age persons without children, and is at its maximum for working age couples with no children. Average income are lower for two-adult households with children (with a head of working age), for couples with a head of retirement age and for older persons living alone. The income patterns by household type is generally more varied than that by age, and there is also greater variations across countries.

3.2 Income composition

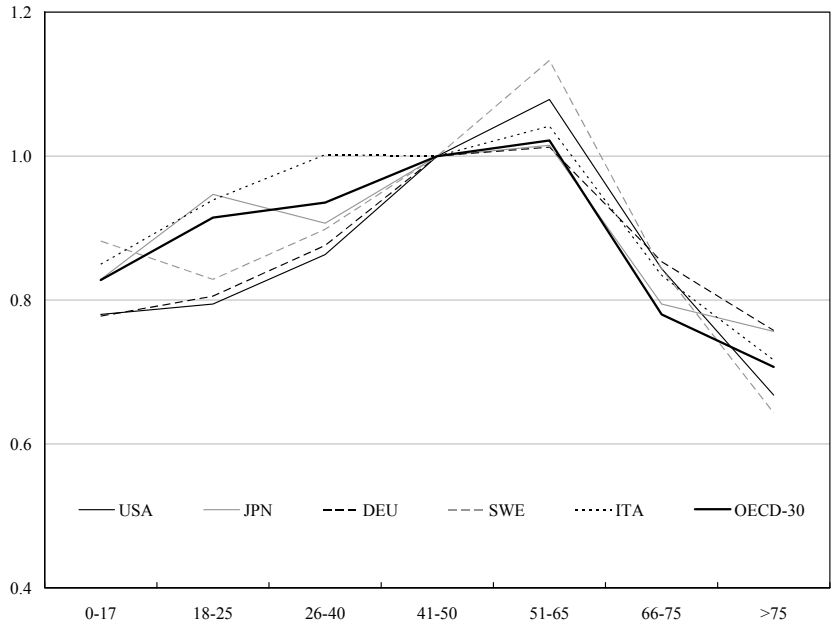
Pension systems in many OECD countries have been reformed in the last 10-15 years, and they underpin a trend towards a greater diversification of the pension income portfolio in the majority of countries. In general, there has been a move away from the public provision of pension income and towards greater reliance on capital income in the form of private personal and occupational pension income. Below, results from the OECD Income Distribution Database are presented so as to shed further light on these income developments for older persons.

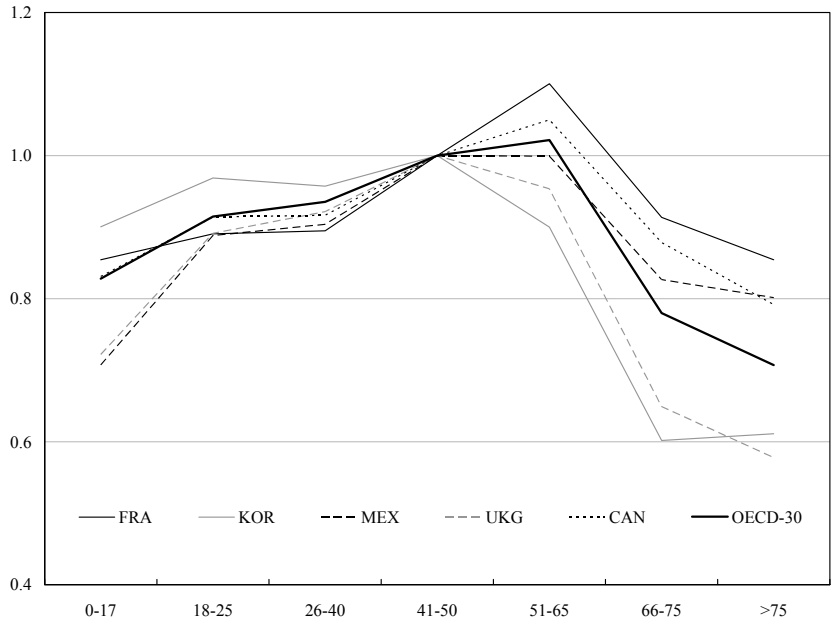
Table 2 illustrates the share of various components of income for households of retirement age. These components include capital income as well as social security cash benefits and household taxes. These results are provided for two time periods: for mid-1990s and mid-2000s. The following results stand out when looking at the share of the social security cash benefits, which contains universal, income-related as well as contributory components of public pensions.

- Not surprisingly, social security cash benefits are the most significant part of income for the population of retirement age. On average, this amounts to two thirds of their income, and to more than 90 per cent in Belgium, France, Italy, Luxembourg, Sweden and Austria.
- In contrast, social security cash benefits account for only around half of the household income of the elderly in Australia, Canada, Ireland, Japan, the Netherlands, Turkey, the United Kingdom and the United States, and they are least significant in Korea, and Mexico.

Figure 6

Relative Income by Age of Individual in Selected OECD Countries
Equivalised Household Disposable Income, Mid-2000s
(persons aged 41-50 = 1)





Source: OECD (2008).

- Out of 17 countries for which trend data is available, eight countries exhibit a decline in the share of social security cash transfers in retirement income. Two Nordic countries, Finland and Denmark, and Australia show a large decline (8+ share points) in the size of this component in retirement income.
- Retirement income saw a rise in the importance of the social security cash income in only three countries: Japan (18 share points), Portugal (13) and Italy (9).

Capital income, which contains private occupational and personal pensions and other private transfers, is the second most important component of income for older people in the majority of countries. Results show that:

- the share of capital income is particularly high in Australia, Denmark, Canada, the United Kingdom and the United States, as these countries have well developed private pension schemes;[3]

[3] The apparently high level of capital income for the retirement age population in Finland reflects the fact that, in the income questionnaire used by the OECD, mandatory occupational pensions are counted as a private transfer (hence included in capital income) rather than as government cash transfers.

Table 2

Income Composition of Older Households, Mid-1990s and Mid-2000s

Country	Mid-1990s					Mid-2000s				
	Earnings	Self-employment Income	Capital Income	Transfers	Taxes	Earnings	Self-employment Income	Capital Income	Transfers	Taxes
Australia	0.20	0.03	0.29	0.57	–0.09	0.18	0.04	0.39	0.49	–0.10
Austria	-	-	-	-	-	0.15	0.09	0.02	1.01	–0.27
Belgium	0.09	0.02	0.13	0.76	-	0.11	0.03	0.09	0.97	–0.20
Canada	0.18	0.03	0.45	0.52	–0.18	0.17	0.03	0.48	0.47	–0.15
Czech Republic	0.22	0.04	0.02	0.78	–0.06	0.20	0.06	0.01	0.79	–0.06
Denmark	0.13	0.04	0.41	0.90	–0.48	0.13	0.04	0.46	0.81	–0.44
Finland	0.08	0.06	0.79	0.34	–0.27	0.09	0.06	0.92	0.18	–0.25
France	0.08	0.02	0.08	0.89	–0.07	0.05	0.01	0.09	0.91	–0.06
Germany	0.12	0.02	0.14	0.86	–0.13	0.10	0.04	0.17	0.82	–0.13
Greece	0.12	0.16	0.12	0.60	-	0.14	0.11	0.08	0.66	-
Hungary	0.14	0.09	0.03	0.74	-	0.09	0.03	0.03	0.86	-
Iceland	-	-	-	-	-	0.36	0.05	0.13	0.80	–0.34
Ireland	0.20	0.13	0.14	0.59	–0.06	0.15	0.08	0.27	0.56	–0.05
Italy	0.19	0.11	0.11	0.79	–0.19	0.14	0.15	0.05	0.87	–0.21
Japan	0.56	0.14	0.08	0.38	–0.16	0.42	0.09	0.09	0.56	–0.15
Korea	-	-	-	-	-	0.31	0.31	0.28	0.16	–0.05
Luxembourg	0.13	0.02	0.09	0.76	-	0.10	0.04	0.10	0.91	–0.15
Netherlands	0.10	0.04	0.45	0.57	–0.14	0.09	0.02	0.46	0.53	–0.10
New Zealand	0.11	0.04	0.36	0.76	–0.27	0.14	0.04	0.25	0.77	–0.20
Norway	0.13	0.06	0.33	0.71	–0.23	0.12	0.02	0.35	0.73	–0.23
Poland	-	-	-	-	-	0.19	0.06	0.01	0.93	–0.18
Portugal	0.27	0.11	0.09	0.61	–0.07	0.26	0.07	0.05	0.74	–0.12
Spain	0.18	0.06	0.07	0.68	-	0.21	0.03	0.05	0.70	-
Slovak Republic	-	-	-	-	-	0.16	0.02	0.01	0.86	–0.05
Sweden	0.09	0.01	0.31	0.95	–0.35	0.12	0.02	0.30	0.96	–0.40
Switzerland	-	-	-	-	-	0.69	-	-	0.64	–0.33
United Kingdom	0.13	0.04	0.41	0.54	–0.11	0.11	0.03	0.42	0.54	–0.10
United States	0.27	0.04	0.39	0.44	–0.14	0.35	0.05	0.35	0.42	–0.16
OECD (17)	0.18	0.06	0.29	0.66	–0.18	0.17	0.05	0.30	0.66	–0.17

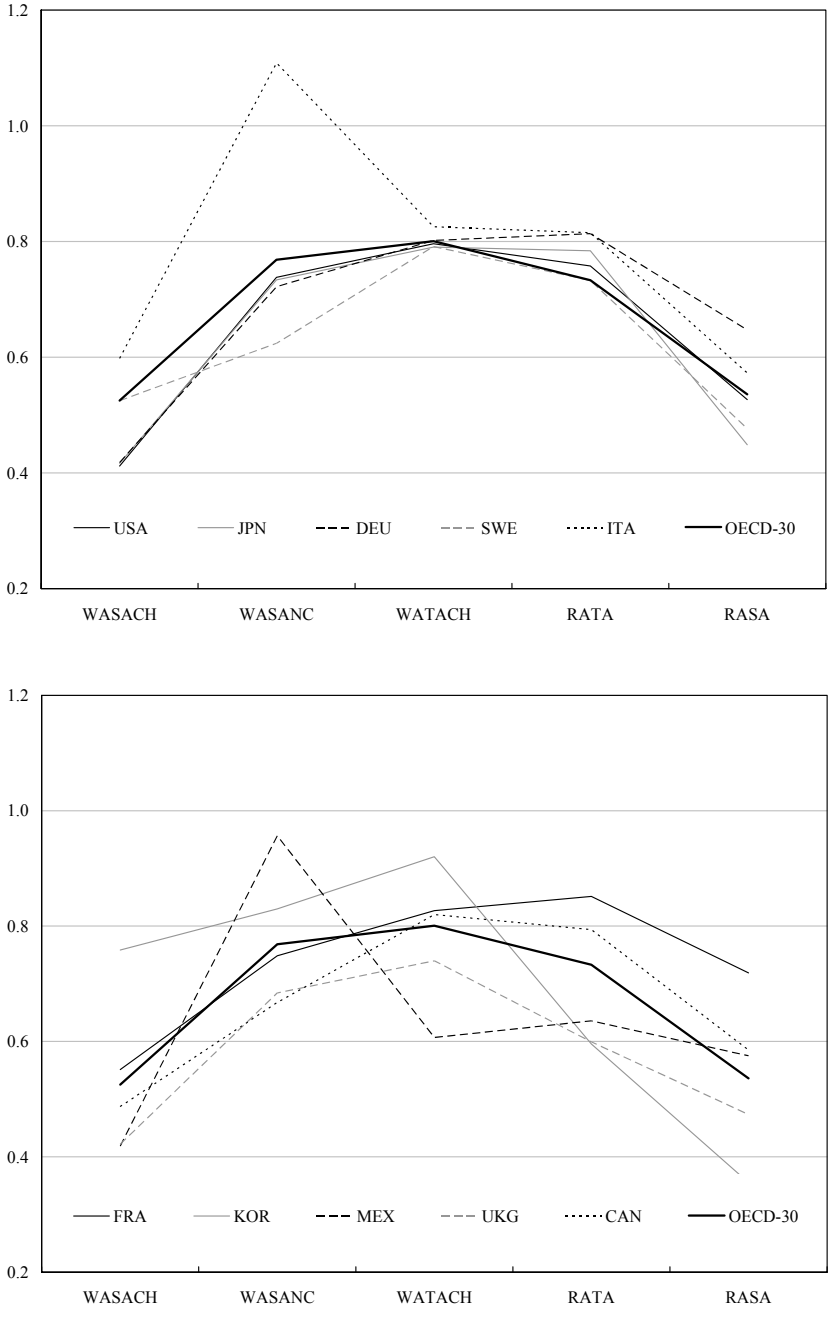
- in Finland, Denmark and Australia, the rise in the share of the capital income offsets almost exactly the fall observed in the share of the social security cash income. The rise in the capital income share in Ireland comes largely at the expense of a fall in the share of earnings and self-employment income.

The role of taxation for older households also varies widely across countries. Household taxes account for more than 40 per cent of household disposable income in Sweden and more than 50 per cent in Denmark and Iceland. The share of household taxes has decreased in Canada, Denmark, Finland, Germany, Japan, the Netherlands, and New Zealand over the period mid-1990s and mid-2000s.

It is also clear that the relationship between measured taxes and transfers differs across countries. For example, in the United States – based on the household survey data used – household taxes (at 26 per cent of household income) are nearly three times higher than public cash transfers. At the other extreme, in the Czech Republic, France, Luxembourg and the Slovak Republic,

Figure 7

Relative Income by Household Type in Selected OECD Countries
Equivalised Household Disposable Income, Mid-2000s
(two or more adults without children and working-age head = 1)



Note: WASACH = working-age head, single adult with children;
WASANC = working-age head, single adult without children;
WATACH = working-age head, two or more adults with children;
WATANC = working-age head, two or more adults without children;
RATA = retirement age head, two or more adults;
RASA = retirement age head, single adult.
Source: OECD (2008).

measured transfers account for a larger share of household disposable income than measured taxes. A major factor behind these variations is the fact that employer social security contributions – which finance a large part of the welfare state in these and some other countries – are paid by employers directly to the government, and since they do not pass through the household sector they are not recorded in household income surveys.

4 Redistributive role of public cash benefits and household taxes

4.1 Public cash benefits

Table 3 provides information for OECD countries on how public cash benefits are distributed across income groups. The measure used for summarising this information is the "Concentration coefficient" as defined at the foot of Table 3. The key message drawn from the measure of concentration coefficient is to see how poorer income groups benefit more from a higher share of public cash benefits than their share in the overall disposable income.[4] Results show that:

- cash benefits are more progressively distributed than market income in all countries, thus they contribute to reducing inequality;
- the distribution of cash benefits for retirement age households is most progressive in Finland, followed by Australia and Denmark, while it is least progressive in Mexico, Turkey, Korea, Portugal, Poland and France;
- with the exceptions of Portugal and Turkey, transfers to people of working age are more progressively distributed than those to people of retirement age, although the differences are small in Greece, Iceland, Poland and Portugal, as well as in Italy, Luxembourg and Spain;
- the ranking of countries is broadly similar for transfers to people of retirement age and of working age, although Finland (not Australia) has the most progressive distribution of transfers to people of retirement age.

4.2 Household taxes

The second panel of Table 3 shows the distribution of household taxes (income taxes and employee social security contributions). Because taxes are deducted from household income, higher values of the concentration coefficient imply a more progressive distribution of household taxes. Results show that:

- overall, there is less variation in the progressivity of taxes across countries than in the case of transfers. For the retirement age households, taxation is most progressively distributed in Australia, Ireland and the Czech Republic. This is followed by the Slovak Republic, the Netherlands and the United States;
- taxes tend to be least progressive in the retirement age households of the Nordic countries, Poland and Switzerland;
- in most but not all countries taxes are more progressive for the retirement-age population than for the working-age population, reflecting the existence of various tax concessions that exist for low-income retired people.

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[4] For greater details on the definition and suitability of the concentration coefficient, see discussion in OECD (2008), pp. 104-6. Note in particular that the concentration coefficient of transfers can be negative in the case where poorer income groups receive a higher share of transfers than their share of disposable income – with lower and more negative values implying greater progressivity.

Table 3

Progressivity of Cash Benefits and Household Taxes
(concentration coefficients for cash benefits and household taxes, mid-2000s)

Country	Public Cash Benefits			Household Taxes		
	Working Age	Retirement Age	Total	Working Age	Retirement Age	Total
Australia	–0.431	–0.080	–0.400	0.492	0.816	0.533
Austria	0.130	0.256	0.157	0.365	0.464	0.381
Belgium	–0.141	0.169	–0.120	0.363	0.420	0.398
Canada	–0.173	–0.006	–0.152	0.472	0.586	0.492
Czech Republic	–0.151	0.037	–0.154	0.424	0.789	0.471
Denmark	–0.303	–0.054	–0.316	0.332	0.336	0.349
Finland	–0.258	–0.138	–0.219	0.419	0.444	0.428
France	0.098	0.285	0.136	0.354	0.474	0.374
Germany	–0.066	0.175	0.013	0.439	0.485	0.468
Greece[1]	0.176	0.202	0.115	..	..	..
Hungary[1]	–0.025	0.119	–0.016	..	..	..
Iceland	0.018	0.037	–0.041	0.257	0.296	0.267
Ireland	–0.205	–0.001	–0.214	0.531	0.782	0.570
Italy	0.158	0.225	0.135	0.512	0.623	0.546
Japan	0.020	0.121	0.010	0.356	0.429	0.378
Korea	0.040	0.282	–0.012	0.363	0.462	0.380
Luxembourg	0.075	0.145	0.085	0.404	0.430	0.420
Mexico[1]	0.407	0.518	0.373	..	..	..
Netherlands	–0.223	–0.014	–0.198	0.436	0.705	0.471
New Zealand	–0.331	–0.011	–0.345	0.485	0.249	0.498
Norway	–0.177	0.074	–0.183	0.355	0.433	0.376
Poland[1]	0.173	0.198	0.185	0.382	0.325	0.379
Portugal[1]	0.315	0.295	0.247	..	..	..
Slovak Republic	–0.030	0.104	–0.056	0.388	0.726	0.422
Spain[1]	0.102	0.175	0.063	..	..	..
Sweden	–0.153	0.090	–0.145	0.330	0.312	0.337
Switzerland	–0.176	0.015	–0.170	0.211	0.202	0.223
Turkey[1]	0.320	0.288	0.347	..	..	..
United Kingdom	–0.347	0.035	–0.275	0.486	0.614	0.533
United States	–0.115	0.105	–0.089	0.549	0.658	0.586
OECD-24[2]	–0.107	0.085	–0.099	0.404	0.502	0.428

Note: The concentration coefficient is computed in the same way as the Gini coefficient of household income, so that a value of zero means that all income groups receive an equal share of household transfers or pay an equal share of taxes. However, individuals are ranked by their equivalised household disposable income.
[1] Data on public cash benefits are reported net of taxes (*i.e.*, household taxes are not separately identified).
[2] Average of the 24 OECD countries with data on both gross public cash transfers and household taxes (*i.e.* all countries shown in the table except Greece, Hungary, Mexico, Portugal, Spain and Turkey).
Source: OECD (2008).

5 Recent pension reforms and their impact

Figure 8 presents results for 13 OECD countries on the impact of recent pension reforms on the future value of pension entitlements.[5] It simulates the impact of reforms for those workers who entered the labour market in 2004.[6] It compares the situation for a person who spent a full career under the reformed pension system with the benefits that would have been received had the system not been changed.

The results shown are reported in terms of net replacement rates: that is, the value of the pension in retirement, after taxes, compared with the level of earnings when working, after taxes and contributions. In each case, the left-hand chart shows the position of low earners: people earning 50 per cent of the economy-wide average each year of their entire working life. At the right-hand side are the net replacement rates for average earners.

In view of the effect of pension reforms on retirement income of workers at different earnings levels, countries are divided into three groups depending on the effect of their reforms on the retirement income of workers at different earnings levels.

- In the top panel (Figure 8a) are countries that protected low earners from the impact of the reforms. In France and Sweden, for example, the benefits for average earners will be about 20 per cent lower as a result of the reforms while those of low earners are scarcely changed. In Mexico and Portugal, the reduction in benefits for average earners are around 50 and 40 per cent respectively. The reduction for low earners is only around half this level in both cases. In the United Kingdom, recent reforms left the pensions of average earners unchanged, but they increased the benefits for low earners by nearly 25 per cent. All of these reforms, therefore, increased the targeting of the pension system on people who had low income when working.
- The middle panel (Figure 8b) shows four countries in which reforms will result in a similar impact on benefits for both low earners and average earners. Germany and Austria observe the highest decline in net replacement rates, followed by Japan, and this is observed for both low wage and average wage earners. No changes in net replacement rates are observed for Korea and Finland, for both low and average earners.
- The bottom panel (Figure 8c) shows countries with reforms that worked in the opposite way to the first group of countries. In Poland, for example, benefits for average earners will change very little as a result of the reform while for low earners they will fall by over 20 per cent. Similarly, average earners are expected to lose around 5 per cent of benefits in the Slovak Republic, compared with 13 per cent for low earners. These countries explicitly wanted to strengthen the link between pensions in retirement and earnings when working in the belief that this was fairer than a redistributive system and that it would reduce work disincentive distortions in the labour market.

6 Conclusions

Results presented in this paper provide a robust evidence that OECD countries differ significantly in terms of older people poverty rates. Using a relative country-specific poverty line, almost 13 per cent of all older people (aged 66 or above) living in OECD member countries are identified as "poor". Three country groupings are distinguished on the basis of poverty rates for older people: nine countries with low poverty rates for older people (<6 per cent), ten countries

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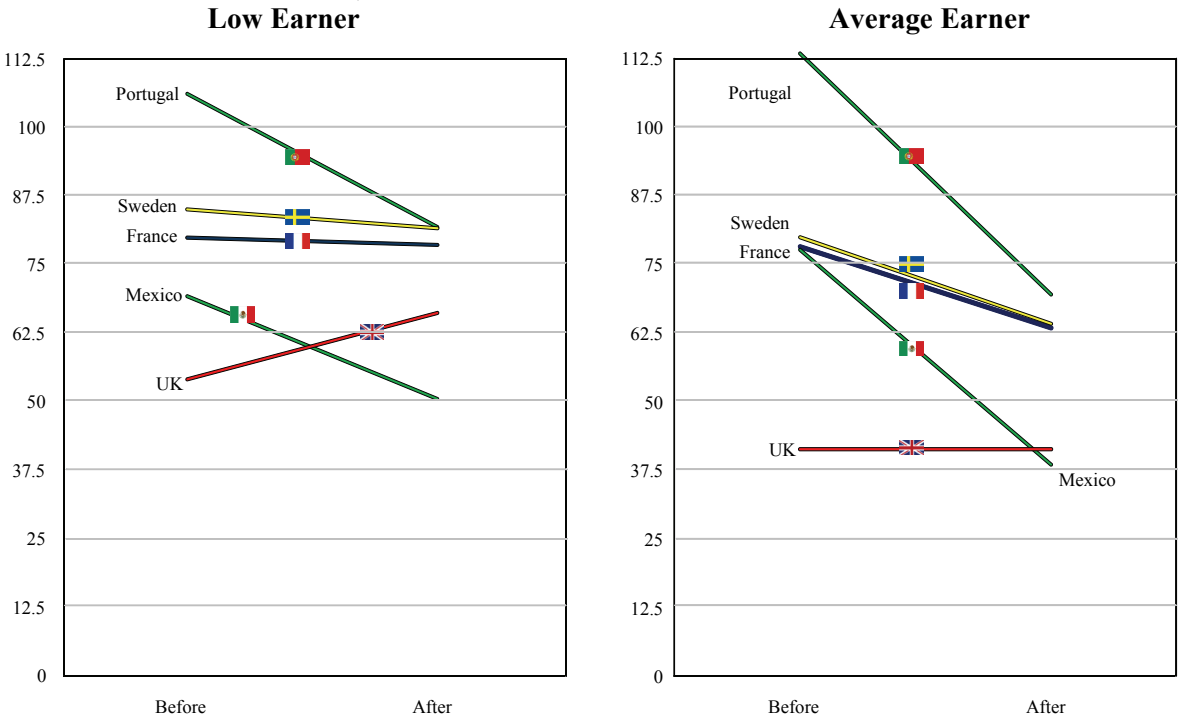
[5] These results are drawn from Martin and Whiteford (2008) and OECD (2007).

[6] For a summary of recent reforms, see OECD (2009), Zaidi and Grech (2007) and Whiteford and Whitehouse (2006).

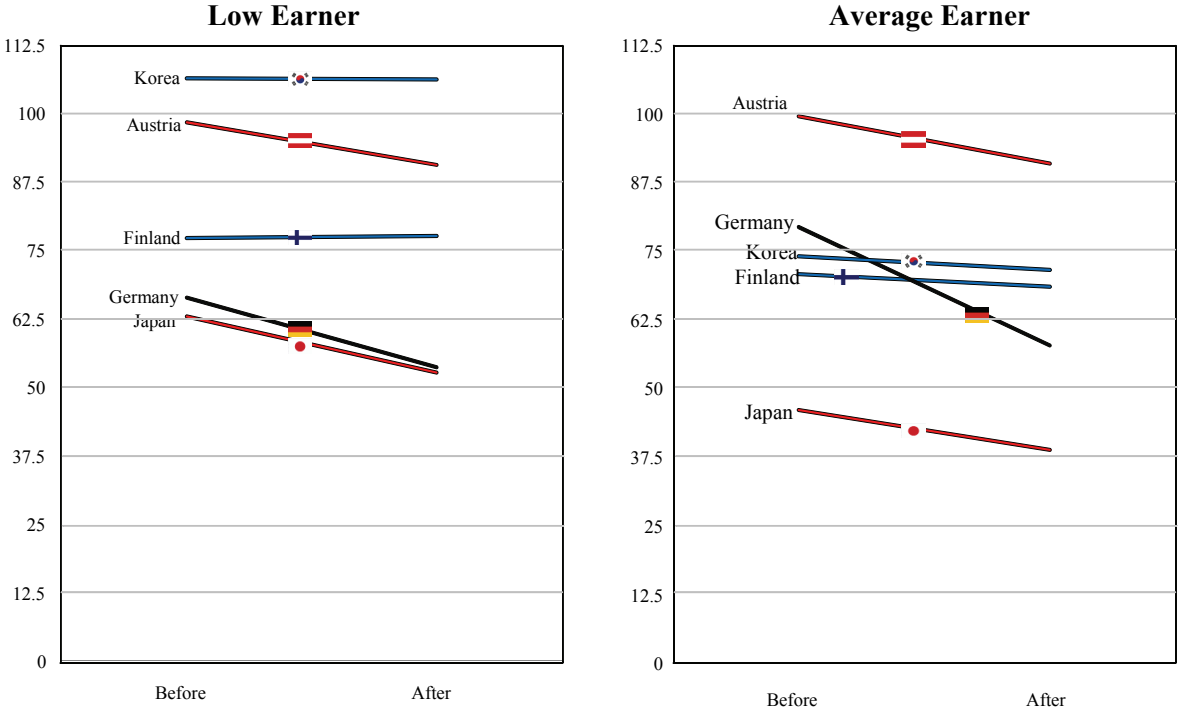
Figure 8

Impact of Pension Reforms on Net Replacement Rates by Earnings Level

a) Reforms that Protected Low Earners



b) Across-the-Board Cuts in Benefits

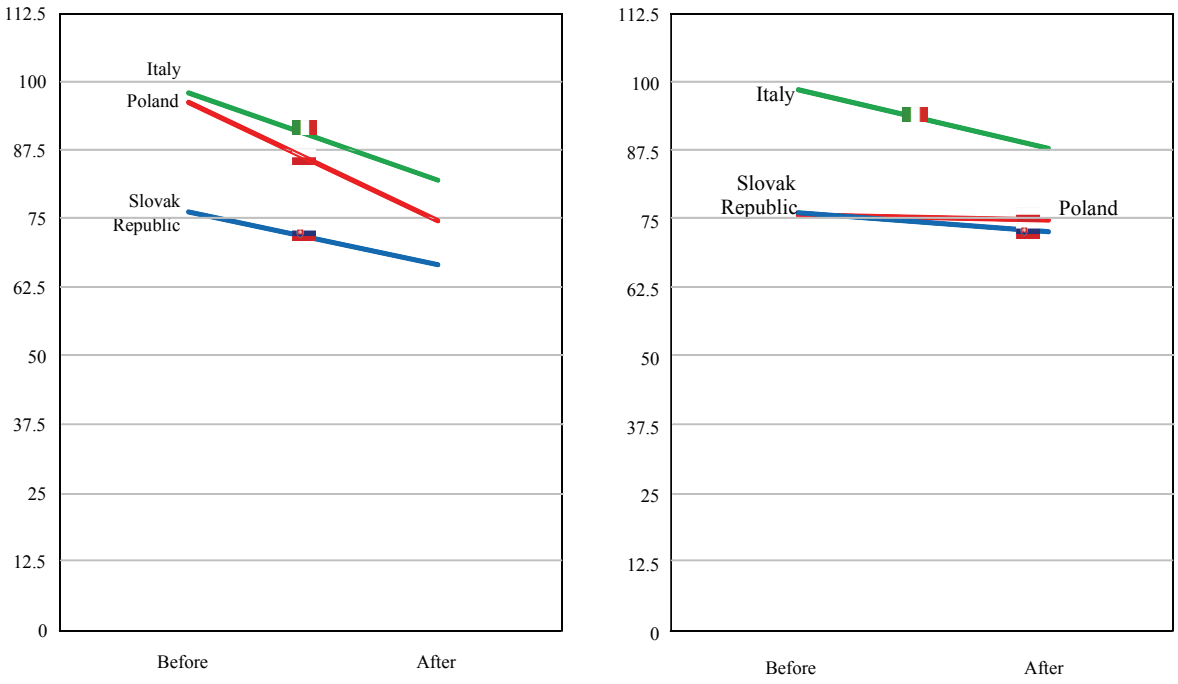


Source: Martin and Whitehouse (2008).

Figure 8 (continued)

Impact of Pension Reforms on Net Replacement Rates by Earnings Level

c) Reforms that Strengthened the Link Between Contributions and Earnings



Source: Martin and Whitehouse (2008).

with lower-than-average poverty rates (7-13 per cent) and eleven countries with higher-than-average poverty rates (>15 per cent). No single explanation can be meaningfully provided to explain this differentiation across the three groupings of countries. Countries with low poverty rates for older people generally have a good social safety net in the form of a basic pension (e.g. the Netherlands, New Zealand and Canada) and/or they offer strong redistribution in the earnings-related contributory pension schemes in the form of minimum guaranteed pensions.

The overlapping group of single elderly women and the oldest age cohort 75+ have, in general, a much higher poverty rate compared to other subgroups of older people. The low pension income for older women is mainly due to the fact that their working lives experienced patterns of employment which has generally low coverage of pension scheme affiliation, and also they had childcare related gaps in their employment record. One reason for the high risk of poverty for the oldest age cohort is that this group has not enjoyed a pension coverage in many countries during the earlier part of their working career. When pension systems matured, they gradually offered greater opportunities to a larger group of working age people to be affiliated with a formal mechanism to save for their pensions. Another explanation is that in many countries the indexation of pension benefits with prices only led to pension benefits lagging behind the general evolution of income.

There is a growing body of evidence that suggests that older people poverty rates in OECD countries contrast favourably with those for younger age groups. In general, poverty rates for all

age groups above 50 have declined, while those for people below that age have risen. The decline in the poverty of retirees is indeed a reflection of the success story of past pension policies in providing for adequate pension benefits. However, in view of financial sustainability concerns linked with such pension generosity in many countries, recent pension reforms have scaled down the level of pension benefits. Thus, in the absence of extending working careers, it is likely that future generations of older persons will be more often poor than the rest of the population. The evidence presented in this paper show that reforms in some countries will make their systems less redistributive whereas other countries (such as the United Kingdom and France) have strengthened the protection of low earners in their reformed system.

ANNEX
A SYNOPSIS OF POVERTY DEFINITION AND ITS MEASUREMENT

The poverty definition adopted in this study is the relative country-specific poverty measure: this views poverty in a nationally defined social and economic context. It is commonly measured as the percentage of population with cash income less than some fixed proportion (say, 50 per cent) of national median income. Such relative poverty measures are now commonly used as the official poverty rate in several OECD countries. The measurements are usually based on a household's yearly cash income and frequently take no account of household wealth, or inequality of resource distribution that may exist within a household.

The main poverty line used in the OECD's report *Growing Unequal?* (OECD, 2008) is based on a level of income that is set at 50 per cent of the median household income. Household income includes earnings, transfers and income from capital, and is measured here net of direct taxes and social security contributions paid by households.

The data reported here are collected through a network of OECD's national experts, who apply common conventions and definitions to the unit record data from different national data sources and supply detailed cross-tabulations to the OECD. Years of reference vary slightly across countries. For the mid-2000s, most data concern the year 2004, except for Canada, Denmark, Germany, Hungary, Ireland, Korea, the United Kingdom, and the United States for which data belong to 2005; and the Netherlands for which data belong to 2003. For the mid-1990s, most data concern the year 1995, except for Austria for which data belong to 1993; Ireland, Japan, Mexico and Turkey for which data belong to 1994; and the Czech Republic, France and Luxembourg for which data refer to 1996.

Some qualifications for results presented in this report are in order. The estimates of the elderly poverty rates are very sensitive to some of the measurement methods adopted.

- *First*, the cash income definition used here exaggerates the poverty rates of the elderly compared to other groups because no account is taken of the value of services drawn from owner-occupied accommodations. In Denmark, for example, the inclusion of imputed rents in the income definition lowers the poverty headcount of the elderly from around 10 per cent to around 4 per cent, as compared to a reduction from 5.3 to 4.7 per cent for the entire population.
- *Second*, as the old age pension is often the main (or only) income source for the elderly, their cash income is typically clustered around the prevailing pension rates. This leads to the high sensitivity of poverty estimates to small changes in the income threshold used: in Australia, for example, the income-poverty rate falls from 26 per cent for a threshold of 50 per cent of median income, to 18 per cent for a threshold of 47 per cent.
- *Third*, estimates are very sensitive to the equivalence scale used: in Australia, the elderly poverty rate at 50 per cent of median income falls from 26 per cent based on the 0.5 equivalence scale used in this report, to 17 per cent based on the "modified OECD equivalence scale" (where the first adult has a weight of 1.0, the second and subsequent adults a weight of 0.5, and dependent children a weight of 0.3, which is closely approximated by an equivalence scale of 0.6) conventionally used by the Australian Bureau of Statistics.

Household income data have other limitations as well. They do not include consumption value of durables or additional costs such as health insurance. Moreover, the income of current generation of older people reflects the pension rules of the past, and much has changed recently.

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