

INCOME DISTRIBUTION AND POVERTY IN THE OECD AREA: TRENDS AND DRIVING FORCES

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INTRODUCTION

There have been rising concerns that economic forces are causing income inequality to rise, creating a difficult challenge for policy makers. However, policy mistakes can be avoided only if trends in income distribution are well understood and that has not been the case for the OECD area since few comparative statistics have been available. Furthermore, the distribution of income is affected by many factors and the trends driving changes in *e.g.* joblessness, earnings, capital income and family size are complex and sometimes off-setting. However, some idea of which factors may be key can be gleaned by comparing country experiences in order to see which trends are truly global, which affect only economies and societies of a particular type, and which are country specific, perhaps reflecting contingent policy choices.

There is an increasing literature of *national* empirical analyses of income distribution and poverty trends in OECD Member countries. The main impression gained from these studies is that of a broad stability during the decade of the 1970s and increasing polarisation since the 1980s, starting in the Anglo-Saxon countries and followed by many continental European countries in the 1990s. Those studies, however, make use of different definitions and concepts of income and inequality and often focus particularly on earnings rather than other components of household income. The final distribution of income (“disposable incomes”) is the result of a complex set of relationships, including family formation and dissolution, longevity and fertility, as well as the more obvious trends in earnings, taxes and the returns on capital.

The present article uses comparable data and definitions to look at over 20 OECD countries, a coverage sufficient to determine whether one can truly speak of “OECD-wide” trends, rather than a few country-specific tendencies.¹ Unlike previous comparative studies, inequality trends are examined for a majority of OECD countries and this study also considers the working-age population separately from the retirement-age population, looks in more detail at the distribution of different cash transfers, and analyses both relative and “absolute” poverty.² The second section documents recent trends in the overall distribution of disposable income in OECD countries, as well as identifying population groups who were among the winners and losers. The third section analyses the driving forces underlying these trends, including the frequently off-setting trends in the

distribution of market-based incomes and the redistributive impact of taxes and transfers. The conclusion assembles 12 stylised facts that emerge from this analysis and provide important context for making policy choices in this difficult area.

MAIN TRENDS IN THE DISTRIBUTION OF DISPOSABLE INCOMES AND POVERTY

Overall trends in income distribution

Over a longer time-span, there has been no clear general trend in final income inequality. Table 1 summarises the evidence on trends in the distribution of income, based on the movements in the value of the Gini concentration coefficient of income (see the box on the definition of income for an explanation of the methodology followed). In the ten countries for which a relatively long time span can be considered, from the mid-1970s to the mid-1990s, there are four countries where the income distribution widened, three countries where it narrowed, and it

Table 1. Overall trends in income inequality: summary results for the entire population

	Down a lot	Down	Down a bit	No change	Up a bit	Up	Up a lot
Mid-1970s to mid-1990s	Greece		Canada Finland	Japan Mexico Sweden	Australia	Netherlands United States	United Kingdom
Mid-1970s to mid-1980s	Greece	Finland	Canada Japan Mexico Sweden		Netherlands	Australia United States	United Kingdom
Mid-1980s to mid-1990s			Australia Denmark Hungary Ireland	Austria Canada France Greece United States	Belgium Germany Japan Mexico Sweden	Finland Netherlands Norway United Kingdom	Italy Turkey

Notes:

Up a lot: significant rise in income inequality (more than 12 per cent increase).

Up: rise in income inequality (7 to 12 per cent increase).

Up a bit: modest rise in income inequality (2 to 6 per cent increase).

No change: -1 to +1 per cent change.

Down a bit: modest decrease in income inequality (2 to 6 per cent decrease).

Down: decrease in income inequality (7 to 12 per cent decrease).

Down a lot: significant decrease in income inequality (more than 12 per cent decrease).

No comparable data is available for countries not included.

The results are based on the values of the Gini coefficient for all countries in three reference years which may vary among countries. For Hungary the period refers to 1991-1997.

Source: OECD questionnaire on distribution of household incomes (2000).

Box. The definition of income

The income concept used in this paper is that of *equivalent disposable household income per individual*. The income unit is the household, defined as a group of persons sharing a set of common resources. Incomes are recorded on an annual basis and all possible types of cash income have been grouped into four categories:

- i) Gross earnings: the salary income of the household from dependent employment (excluding employers' contributions to social security, but including sick pay paid by social security).
- ii) Gross capital and self-employment incomes: financial gains, real estate rents, occupational pensions and all kinds of private transfers as well as self-employment incomes (but not including imputed income from owner occupation).
- iii) Social security transfers: all kinds of cash transfers from public sources.
- iv) Taxes: direct income taxes and employee social security contributions paid by households.

Household disposable income is defined as total market income (i + ii) plus transfers from general government (iii), less income taxes and social security contributions (iv).

The analysis has been conducted for individuals rather than households and their personal income has been defined as equivalent disposable income and calculated as follows: First, the sum of the disposable incomes of all household members equals household disposable income. Household disposable income then is adjusted for differences in household size to obtain *equivalent household disposable income*. This adjustment recognises some "economies of scale" of consumption within the household. In particular, household disposable income is divided by the square-root of the number of persons in the household: for example, the equivalent income of a four-person household is household income divided by two. (This is usually referred to as "equivalence-scale elasticity" of 0.5. A higher elasticity value assumes less economies of scale in consumption, until the elasticity value of 1.0 which assumes no economies of scale.) Third, equivalent household income is attributed equally to all individuals in the household, even though the incomes they receive as individuals may be different. Children and spouses are assumed to benefit equally from household income. Finally, individuals are ranked by the (ascending) levels of their *equivalent disposable income* (Atkinson, *et al.*, 1995).

remained stable in the remaining three. In five of the ten countries, movements in the first decade (declines in Finland, Japan, Mexico and Sweden; increase in Australia) tended to be offset by opposite movements in the second. However, there *are* signs of a more general trend across OECD countries in more recent

times. According to the Gini coefficient, from the mid-1980s to the mid-1990s³ inequalities decreased only slightly in four of the 20 countries for which trend data are available, remained stable in another five, but increased in the other 11 countries, in half of them by considerable amounts.

Different measures of inequality can give different results, and a careful reading of the table in the Annex shows that during the mid-1980s to the mid-1990s, inequality among the entire population increased unambiguously – *i.e.* four different indicators of inequality pointed to a rise – in just eight of the 20 countries for which multiple trend data are available. In all other countries, inequality indicators moved in different directions. This implies that in no country an unambiguous trend towards greater income *equality* was recorded (see annex). Of course, real incomes have grown in most countries. In 15 of the 21 countries considered, the mean income of each decile in the most recent year lies above that for earlier years. In other words, the bottom 10 per cent in the mid-1990s are better off *on average* than the bottom 10 per cent in the mid-1980s; the second 10 per cent in the mid-1990s have higher average incomes than their counterparts in the mid-1980s, and so on up the income distribution. There are relatively few exceptions – Australia, Canada, Italy, Norway and Turkey and, in particular, Hungary.⁴ This does not mean that all parts of the income distribution gained in overall prosperity to the same extent. In particular, the general pattern has been that the three lower deciles did not share in overall growth to the same extent as higher decile groups. In Germany, Greece, Mexico, the Netherlands, the United Kingdom and the United States, the average incomes of the bottom deciles were just about the same in the mid-1990s as they had been in the mid-1980s. A more significant increase of real mean incomes for the lower three income deciles (15 per cent or more) took place in Austria, Belgium, Denmark, France, Ireland and Japan.

Changes in aggregate inequality can hide other trends. If, for instance, groups in the middle deciles lose ground whilst both bottom and top incomes increase their shares, one can speak of a “hollowing out” of the distribution. Table 2 shows that this was generally not the case during the past decade, with a “hollowing out” occurring only in Belgium and, very marginally, in France and the United States. A widening of the income distribution could happen if the poor become relatively poorer; the rich have relatively more; or a combination of the two. Table 2 suggests that the second of these possibilities has predominated: there has been a trend for those at the top of the income distribution to receive a greater proportion of household income. In 13 of the 20 countries the top income quintile now has a greater proportion of household income than in the mid-1980s, substantially so in Belgium, Finland, Italy, Mexico, Norway and Turkey. Persons at the bottom of the income ladder lost ground relative to the average in eight countries, these losses being largest in Italy.

Table 2. **Gains and losses of income share by income quintile: entire population, mid-1980s to mid-1990s**

	Bottom quintile	Middle quintiles	Top quintile
Australia	=	=	=
Austria	=	=	=
Belgium	=	---	+++
Canada	=	=	=
Denmark	+	=	-
Finland	=	---	+++
France	=	-	+
Germany	-	=	+
Greece	=	=	=
Hungary	+	=	=
Ireland	+	=	=
Italy	---	-	+++
Japan	-	=	+
Mexico	=	---	+++
Netherlands	-	=	+
Norway	-	-	+++
Sweden	-	=	+
Turkey	-	---	+++
United Kingdom	-	-	+
United States	=	-	+

+++ Increase of more than 1.5 percentage point in the share of final disposable income received by the decile group.

+ Increase of between half and 1.5 percentage point.

= -0.5 to +0.5 percentage point change.

- Decrease of between half and 1.5 percentage point.

--- Decrease of more than 1.5 percentage point.

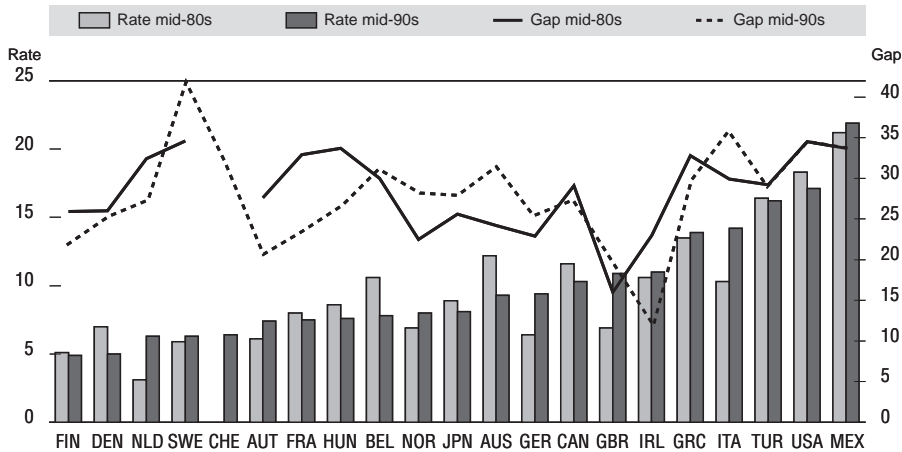
The results are based on percentage point changes of quintile shares in disposable income.

Source: Calculations from OECD questionnaire on distribution of household incomes (2000).

Overall trends in poverty

The changes in the distribution of income are reflected in changes in poverty in the countries concerned. "Poverty" is very difficult to define and measure, particularly when making comparisons across countries. People in different countries have different needs, social and family networks, and governments may provide some services without charge which in other countries would require purchase. A given level of income may support very different standards of living in different countries. But much is nevertheless revealed even if all we do is to look at those households which have low incomes.⁵ Although no-one could pretend that such a measure is ideal, we can at least reconcile ourselves to using such a measure on the grounds that low income in itself may not be sufficient to cause hardship, but it is at least a necessary element of poverty.

Figure 1. **Income poverty rates and poverty gaps in 21 OECD countries, mid-1980s and mid-1990s**



Notes: Poverty thresholds are defined as 50 per cent of median adjusted disposable income in each period in each country. Poverty rates defined as number of persons in households below the threshold in per cent of the total population. Poverty gap defined as average shortfall of low incomes in per cent of the poverty threshold.

Source: OECD questionnaire on distribution of household incomes (2000).

The most common measure of income poverty is the number of people with incomes below a given threshold. Figure 1 defines this threshold using a relative measure (“relative” means that the poverty thresholds in each country refer to a percentage of the median with regard to each country *and each year*). People are said to be in income poverty if their incomes are below 50 per cent of the median disposable income of households, after adjusting for household size.

There has been, on average, little change in poverty levels over time (Figure 1). From the mid-80s to the mid-90s, income poverty at the 50 per cent level fell in six countries, rose in five, and stayed approximately the same in nine. However, opinion varies as to what level of income should be considered “poor”, and poverty estimates can be very sensitive to the particular threshold chosen. Förster and Pellizzari (2000) present results for three alternative poverty lines: the number of persons living in households below 40 per cent, 50 per cent and 60 per cent of the median disposable income in each country, with much smaller declines in the number of “very poor” with incomes less than 40 per cent of the median – only in France and Ireland were reductions in poverty mainly in the number of “very poor”. Looking at the global picture, however, the basic pattern of changes

shown in the table is not misleading: falls in poverty at the 50 per cent level are usually accompanied by falls in poverty at both the 40 per cent and 60 per cent level [exceptions being Ireland and the United States, where reductions in the number of “very poor” have taken place at the same time as the number of those below the 60 per cent threshold stayed constant (the United States) or even increased (Ireland)].

The *number* of people with a low income is only one way of measuring poverty. It says nothing as to the average income level of the poor which could be very close or far beyond a given threshold. Another relevant measure is therefore the intensity of poverty – the income gap ratio – which measures how far below the poverty line is the average poor person, in per cent of the poverty line. This is shown in the lines in Figure 1. On average across 21 OECD countries, the incomes of the poor are some 28 per cent below the poverty threshold of 50 per cent of the median in the mid-1990s, with lower ratios in Austria, Finland, the United Kingdom and, in particular, Ireland and higher ratios in Italy, Mexico, Sweden and the United States. In general, income gap ratios have followed the movements of the poverty head-count rates. This means that in countries in which the proportion of the poor in the population decreased, the average income as a proportion of the poverty line of the remaining poor decreased, and *vice versa*. A few exceptions are noteworthy: in Australia and, to a lesser extent, Belgium and the United States, the income gap widened although poverty rates fell (in other words, fewer people are “poor”, but those who remain have particularly low incomes) and in Austria and the Netherlands, the inverse was the case. Apart from Australia, poverty intensity increased significantly in Italy, Norway and Sweden. On the other hand, a large reduction of the income gap ratio occurred in Ireland.

These poverty estimates refer to percentages of the median income in each of the years considered. Of course, in many countries there have been large increases in average incomes (and in a few others, average household incomes have fallen). Because in most countries incomes have been increasing, poverty rates compared with a fixed level of income have generally fallen. Poverty below constant thresholds – *i.e.* fixed in real terms at the beginning of the period – increased from the mid-1980s to the mid-1990s in only a few countries (Hungary, Italy and Turkey – in Hungary and Turkey, because real mean incomes fell over the period). The most striking case is Hungary: against the background of a deep recession at the beginning of the transition restructuring (1990 to 1993/94), real median income and, hence, the relative poverty threshold fell by one-third. As a consequence, relative poverty rates remained broadly stable while poverty rates under a constant threshold tripled. In all other countries, real incomes increased over the period and poverty below constant thresholds stayed the same or fell, particularly so in Finland and Greece (between the mid-1970s and the mid-1980s) and Ireland (from the mid-1980s onwards).

The trouble with comparing “how many people are poor and to what extent” in different years is that we are not comparing the same people. These results have to be put in the context of income dynamics. Talk of there being fewer people in poverty in the mid-1990s compared with the mid-1980s implies that a few of those who were poor have clawed their way above the threshold. In fact, of course, it is perfectly possible that *none* of those who were poor in the mid-1980s remained so ten years later, because as people’s circumstances change, so they move up and down the income distribution. To some extent, comparisons of “head-counts” of low incomes at a point in time depersonalises the concept of poverty. Poverty is, however, a very personal state, and the amount of time that people spend below an income threshold is very important in determining living standards.

Low income head-counts both massively underestimate and at the same time overestimate the problem of poverty. Oxley *et al.* (2000) and OECD (2001) take the same concept of low incomes – 50 per cent of median household income after adjusting for family size – and follow the same people over a period of six years, or more for a restricted sample of countries. These studies show that:

- On average, at any moment in time, between 6 and 20 per cent of the population in the countries considered have low incomes.
- A larger part of the population than suggested by “static” poverty rates is touched by income poverty over a six-year period, namely between 12 and 40 per cent.
- Only around 1-2 per cent of the population is continuously poor throughout the six years in Canada, Germany, the Netherlands and Sweden. The proportion in the United Kingdom and the United States is significantly higher.
- This means that between 2/3 (in the United States and the United Kingdom) and 6/7 (in the Netherlands) of all those who have low incomes at any point in time, will not be poor at some other time in the six years.
- Even in Sweden, nearly 12 per cent of the population will have low incomes at some point during the six years. In the United Kingdom, this ratio reaches nearly 40 per cent of the sample.
- Persistent poverty is closely associated with the lack of earned income.

“Winners” and “losers” of relative income changes

The classical life-cycle pattern would predict that income increases when individuals enter working life; continues to rise as individuals gain experience in the labour market and accumulate capital assets and declines when moving into retirement. Broadly speaking, this is indeed the pattern found in most countries. Table 3 shows that children are, on average, a little under 10 per cent poorer than

Table 3. **Relative disposable incomes, by age groups**

Average income of entire population = 100

	Children	Young	Young adults	Adults	Older adults	Younger senior citizens	Older senior citizens
	Age 0-17	Age 18-25	Age 26-40	Age 41-50	Age 51-65	Age 65-75	Age 75+
Australia, 1984	87	130	..	107	..	72	..
Australia, 1994	86	122	..	112	..	68	..
Austria, 1983	90	110	104	117	109	82	79
Austria, 1993	90	109	101	116	108	91	80
Belgium, 1983	..	..	..	..	..	..	..
Belgium, 1995	105	83	102	118	108	83	71
Canada, 1985	88	102	103	116	110	91	84
Canada, 1995	88	100	100	114	114	99	95
Denmark, 1983	100	105	109	114	103	74	60
Denmark, 1994	97	97	104	119	113	79	65
Finland, 1986	98	97	103	116	103	80	74
Finland, 1995	101	88	102	114	108	82	75
France, 1984	95	102	106	112	103	86	82
France, 1994	95	97	100	115	109	94	82
Germany, 1984	93	98	102	113	109	85	81
Germany, 1994	91	96	99	118	110	93	77
Greece, 1988	94	104	108	111	102	84	79
Greece, 1994	98	104	110	113	100	80	72
Hungary, 1991	99	109	103	119	96	81	77
Hungary, 1997	93	111	104	109	104	88	81
Ireland, 1987	87	130	105	103	112	85	83
Ireland, 1994	89	117	109	112	111	77	71
Italy, 1984	90	107	106	106	108	82	78
Italy, 1993	89	103	105	109	108	85	82
Mexico, 1989	84	119	113	114	115	99	78
Mexico, 1994	83	113	114	128	121	91	75
Netherlands, 1984	89	104	102	109	112	93	84
Netherlands, 1995	89	97	105	114	112	90	79
Norway, 1986	96	105	104	118	109	78	60
Norway, 1995	98	94	101	120	117	84	61
Sweden, 1983	101	71	105	119	119	91	70
Sweden, 1995	99	60	100	120	127	96	78
Turkey, 1987	89	109	100	117	116	103	106
Turkey, 1994	85	111	103	127	119	89	102
United Kingdom, 1985	90	114	105	124	105	74	72
United Kingdom, 1995	86	112	106	123	108	80	74
United States, 1985	82	99	104	118	121	99	84
United States, 1995	84	94	102	118	124	99	82
Average 17, mid-1980s	92	105	105	114	109	86	78
Average 17, mid-1990s	91	100	104	117	112	88	78

Notes: For Australia, the group "adults" refers to age 26-65, and the group "younger senior citizens" to age above 65. For calculating relative income changes, population shares have been kept constant at the beginning of the period.

Source: OECD questionnaire on distribution of household incomes (2000).

the population average. The richest age group are individuals aged 41 to 50 (and indeed this is true within every country, other than the United States and Sweden). Beyond 65, average incomes are 10 per cent below the population average, falling to 20 per cent below average for those aged over 75.

However, the changes in this distribution have been significant. In nearly all countries people aged 41-50 have seen an increase in incomes relative to the average of all age groups between the mid-1980s and mid-1990s. Even more strikingly, in most countries, elderly age groups also benefited from changes in the income distribution, in particular those just before or just after retirement: relative incomes of those aged 51 to 65 increased by 3 percentage points on average, and relative incomes of those aged 66 to 74 increased 2 percentage points (falls in incomes beyond the age of 65 being found in Australia, Greece, Ireland, Mexico, the Netherlands and Turkey). However, relative incomes of those aged 75 and over increased by less, if at all.

In stark contrast, younger age groups lost ground during the past ten years: relative incomes of children decreased by approximately 1 percentage point, on average, and those of persons aged 18 to 25 by 5 percentage points. This latter development is linked to delayed labour market entry of younger people due to longer education periods and/or unemployment.

There are large differences in standards of living across different family types. Persons living in households with only one adult generally have lower relative incomes than those living in households with two or more adults (Table 4). The gap between the incomes of the two types of households has not become smaller over time. Lone parents have – by far – the lowest relative incomes, usually between half to two-thirds the level of the average income of the entire working-age population. Only in three Nordic countries, Austria and Greece did they have relative incomes above two-thirds of the average. Their income position relative to the rest of the population has declined in recent years in half the countries. Relative incomes of persons living in two-adult households with children did not move very much (except in Austria and Greece where they increased and in Mexico where they decreased). Those living in two or more adult households without children improved their income position in six countries, particularly in Mexico but lost ground in another four countries, particularly in Austria.

These patterns in the distribution of income are replicated to some extent when looking at poverty rates. Taking the average of all countries, people aged under 25 and over 65 have higher than average poverty rates. The only two countries in which poverty rates of *all* ages increased were the Netherlands and the United Kingdom, and relative poverty declined across all age groups in Australia. Elsewhere, the age profile of poverty has shifted. Overall, whereas the probability

Table 4. **Relative disposable incomes, by family types**
Average income of working-age population = 100

	Single adult, with children	Single adult, no children	Two adults, with children	Two adults, no children
Australia, 1984	53	99	92	131
Australia, 1994	57	92	93	129
Austria, 1983	63	93	95	121
Austria, 1993	87	85	98	110
Belgium, 1995	69	126	85	125
Canada, 1985	50	90	94	121
Canada, 1995	57	85	94	120
Denmark, 1983	61	77	101	113
Denmark, 1994	59	75	100	115
Finland, 1986	75	75	100	113
Finland, 1995	76	75	100	112
France, 1984	73	95	96	113
France, 1994	66	94	97	113
Germany, 1984	55	87	95	113
Germany, 1994	57	90	95	112
Greece, 1988	68	104	95	112
Greece, 1994	82	98	97	107
Italy, 1984	57	97	91	118
Italy, 1993	52	93	91	118
Mexico, 1989	75	133	87	151
Mexico, 1994	62	124	85	161
Netherlands, 1984	60	90	92	121
Netherlands, 1995	55	80	93	123
Norway, 1986	65	81	99	115
Norway, 1995	67	73	99	117
Sweden, 1983	76	77	101	126
Sweden, 1995	72	74	101	131
Turkey, 1994	65	107	91	169
United Kingdom, 1985	59	87	94	124
United Kingdom, 1995	51	92	93	127
United States, 1985	46	100	92	130
United States, 1995	49	99	93	127
Average 15, mid-1980s	62	92	95	122
Average 15, mid-1990s	63	89	95	121

Notes: Two adults refer to two and more adults. For calculating relative income changes, population shares have been kept constant at the beginning of the period.

Source: OECD questionnaire on distribution of household incomes (2000).

of the younger age groups being poor has been rising relative to the average since the mid-1980s, for the older age groups it has generally been declining (particularly in Canada, Denmark and France). At the same time, as already described, the number of people in the younger age groups has been declining and the number of older persons has been rising. As a result, despite a higher proportion of young people having low incomes, the proportion of poor people who are young has not changed much.

Child poverty has risen in about half of all countries, and declined in half. Child poverty has moved sharply up the political agenda in many countries, reflecting much greater concern about the effects of poverty in childhood on future life-chances. It is becoming relatively common for countries to set targets for reducing child poverty. Children are, in general, represented in the poor population as much as in the entire population. The exceptions are the four Nordic countries, with child poverty rates well below the average for the population, and Canada, Hungary, the Netherlands, the United Kingdom and the United States, where child poverty exceeds the average (Oxley *et al.*, 2001). There are some remarkable differences between countries. In Hungary, Italy, Mexico, Turkey, the United Kingdom and the United States persons in families with children have a considerably higher poverty risk than those families without children. The other extreme is Belgium and the four Nordic countries where *childless* families are more likely to experience poverty than families with children.

On average, single parents are represented three times as often in the poor population than in the working-age population as a whole. This over-representation has however been decreasing over time in about half the countries and this decline was especially notable in Australia, Canada, Germany and the four Nordic countries. Poverty rates of lone parents, however, remain high in almost all countries studied. In some countries (Canada, Denmark, Germany, Netherlands, United Kingdom) their poverty rates are as much as four times higher than for the total working age population. A remarkable exception is Sweden. In this country, poverty rates for persons living in single parent households fell significantly during the past 10 to 20 years, and are today at the same low level as for the entire population, and slightly lower than for the working-age population.

Whilst the *chance* of being poor varies sharply across groups, this information is not enough to give a full picture of poverty. Lone parents are particularly likely to be poor, but they remain a relatively small part of the poor population. Persons in families with children made up around one-third or less of the poor population in the four Nordic countries and Belgium, but a majority in the other countries, and more than 70 per cent in Hungary, Italy, Mexico, Turkey, the United Kingdom and the United States. Single parents account for 20 per cent to 25 per cent of the poor population in Australia, Canada, Denmark, the Netherlands, Norway and

the United States, and over one-third of those with low incomes in the United Kingdom. On the other hand their share is below 5 per cent in Greece, Italy and Mexico and negligible in Turkey.

DRIVING FACTORS OF CHANGING INCOME DISTRIBUTIONS

The distribution of income and the level of poverty can best be understood as being determined by two factors: differences in market income and the redistributive impact of fiscal and social policy. In policy discussions, most attention is given to the effects of taxes and transfers, *i.e.* how much governments take from one group and give to another. This is indeed of great importance, and there are large differences in the extent of this redistribution of income across countries. However, before looking at how government redistributes income, it is important to understand why it is that some groups have little income other than income transfers, and why others have sufficient incomes for governments to tax them for redistribution.

The analysis in the following two sections is confined to the working-age population, in order to abstract from changes that took place in shares of public and private pensions.⁶ These sections explore the extent to which shifts in components of disposable income (market income, transfers and taxes) and trends in employment concentration within and across households contributed to changes in income inequality. What is particularly interesting is that whereas governments have taken different approaches to redistribution over the past ten or 20 years (in some countries redistribution has increased, in others it has not), there is a common, underlying trend in the distribution of income *before* taxes and transfers towards increasing inequality.

Driving factors: I. Market incomes

Market income distribution

In many national studies, the distribution of market income has been described as widening, and gross earnings have been identified as the main contributor to increased overall income inequality. Table 5 confirms this picture. It shows the allocation market income and its two components – gross earnings and capital/self-employment income – across three income groups: the bottom three deciles (“lower incomes”), the four middle deciles (“middle incomes”), and the top three deciles (“higher incomes”). The shares of earnings and other market incomes going to the lower incomes are small: the poorest 30 per cent of the population receive between 6 and 12 per cent of total market income in most countries. While it should not be surprising that very few people in the bottom

Table 5. **Distribution of market income: proportion of different sources of income received by different income groups of the working-age population**

	Share of earnings, mid-1990s			Share of capital and self-employment income, mid-1990s			Share of total market income, mid-1990s		
	Poorest 30%	Middle 40%	Richest 30%	Poorest 30%	Middle 40%	Richest 30%	Poorest 30%	Middle 40%	Richest 30%
Australia	6.3	36.7	57.0	13.8	32.3	53.9	7.4	36.0	56.6
Belgium	7.4	38.8	53.8	7.2	16.0	76.7	7.4	33.8	58.8
Canada	9.2	36.7	54.1	11.2	29.3	59.5	9.6	35.5	54.9
Denmark	11.1	39.0	49.9	13.5	27.3	59.2	11.4	37.8	50.8
Finland	7.5	36.8	55.7	18.4	31.9	49.7	10.2	35.6	54.2
France	10.7	35.7	53.6	12.1	20.8	67.1	10.9	33.5	55.6
Germany	12.2	37.4	50.4	9.2	28.3	62.5	11.9	36.3	51.8
Greece	9.6	36.7	53.6	14.2	31.4	54.4	11.7	34.3	54.0
Hungary	8.5	34.0	57.5	8.8	22.6	68.6	8.6	32.0	59.4
Ireland	4.8	34.9	60.3	8.9	27.1	63.9	5.7	33.2	61.1
Italy	10.4	37.2	52.4	5.9	20.3	73.8	9.0	31.9	59.1
Mexico	5.3	24.8	69.9	9.1	22.7	68.2	6.4	24.1	69.4
Netherlands	9.9	38.3	51.8	10.8	30.7	58.6	10.0	37.1	52.8
Norway	11.6	41.0	47.4	8.7	21.2	70.1	11.0	37.3	51.7
Sweden	8.8	37.3	53.9	16.1	30.0	53.9	9.3	36.9	53.9
Turkey	12.3	35.5	52.2	6.0	18.2	75.8	8.0	23.9	68.1
United Kingdom	6.9	36.3	56.7	11.3	28.6	60.0	7.8	34.9	57.4
United States	8.9	35.1	56.0	9.2	26.2	64.6	8.9	33.9	57.1
Average (13)	9.0	37.2	53.8	11.2	26.4	62.4	9.3	35.3	55.4
Change mid-1980s to mid-1990s	-1.7	-0.5	2.2	-2.8	-0.7	3.5	-1.7	-0.6	2.3

Notes: Data for Greece, Hungary, Mexico and Turkey refer to market incomes net of taxes and are therefore not entirely comparable with the results from the other countries. They are excluded from the average.

For calculating the average of percentage point changes, Belgium has also been excluded due to lack of mid-1980s data. Income groups were built on the basis of final disposable adjusted income.

Source: OECD questionnaire on distribution of household incomes (2000).

deciles have much income from capital, it is striking that nearly one-third of the working-age population has so little income from labour. This suggests that barriers to working play a critical role in explaining low incomes, a linkage that is examined in greater detail below. In contrast, the richest 30 per cent of the population have something between 50 per cent and 60 per cent of all market income, the exceptions being Mexico and Turkey, where the richer part of the population commands an even greater share of market income.

Furthermore, the trend has been for the top 30 per cent of the population to receive an ever larger proportion of capital and labour income, the only exception being Ireland. At the same time, those with incomes at the bottom of the distribution have seen a relative decline in market income in all countries; and those in

the middle of the distribution in most countries, as well. Among market incomes, the dispersion of capital and self-employment incomes increased particularly rapidly, although country patterns are much more diversified than for earnings.

This pattern of a widening distribution of market income predates the mid-1980s, going back to the 1970s in many, albeit not all, countries. The *underlying* trend in the distribution of market income has been towards a widening. Whatever governments have been doing to taxes and transfers in order to make economies and societies more or less equal according to political preferences⁷ has been happening against this background of the richer groups getting relatively richer, and the poorer groups receiving relatively less income from their efforts in working or saving.

There have been some recent trends in the economy which have widened the distribution of market incomes. Unemployment was higher in most countries in the mid-1990s than in the mid-1980s and 1970s. Those with particularly valuable skills in the new economy have been able to command very high rates of remuneration. The rate of return on capital has been high in the 1990s. But these “explanations” are only part of the story. After all, unemployment may have been high, but because female employment had continued to rise, employment rates were nearly as high as they had ever been.

The main contributor to increased overall income inequality has been the distribution of gross earnings across households. The shares of earnings going to the lower income groups has fallen in practically all countries. In addition, capital and self-employment income has also become more unequally distributed, although because such income is small in comparison with earnings, the overall effects are less important.

The importance of the earnings distribution and employment polarisation

Talking about widened earnings distribution as the cause of widened market income distribution just pushes the key question back further: what has been causing the widening in the earnings distribution? An important part of the answer lies in the allocation of employment across and within households. “Work” is becoming more concentrated in some households. In other words, there are more households where all adults are working, more households where no adults are working, and fewer households where there is at least one adult working and one adult not working. This process – the simultaneous increase in both workless and fully employed households – has been described as a process of “employment polarisation” by Gregg and Wadsworth (1996). OECD (1998) found this process being at work in nine of 11 European OECD Member countries.

Table 6 divides the population where the head of the household is still of working-age into three groups: those where every adult who is present in the

Table 6. Changes in households' employment concentration
 Percentage point change in the distribution of working-age households

	Population shares		
	Fully employed	Workless	"Mixed"
Australia, 1984-1994	5.2	1.7	-7.0
Austria, 1983-1993	13.7	0.6	-14.4
Canada, 1985-1995	1.9	1.9	-3.8
Denmark, 1983-1994	-0.4	2.5	-2.0
Finland, 1986-1995	-0.8	4.1	-3.3
France, 1984-1994	4.1	1.1	-5.2
Germany, 1984-1994	0.1	1.4	-1.5
Greece, 1988-1994	8.4	-1.3	-7.1
Italy, 1984-1993	0.2	4.7	-4.9
Mexico, 1989-1994	5.7	0.8	-6.5
Netherlands, 1984-1995	14.4	1.6	-16.1
Norway, 1986-1995	2.0	4.8	-6.8
Sweden, 1983-1995	-1.2	3.4	-2.2
United Kingdom, 1985-1995	4.8	0.6	-5.4
United States, 1985-1995	3.1	-0.6	-2.5
Average change	4.1	1.8	-5.9
Average levels mid-1990s	64.7	9.8	25.5

Notes: "Fully employed households" are households in which all adult persons have an employment; "workless households" households in which no person has an employment; and "mixed households" two or more adult households with only one earner. Data refer to households with a head of working-age. Changes are percentage point changes.

Source: OECD questionnaire on distribution of household incomes (2000).

household is working; those where no adult in the household is working, and "mixed" households where one adult is working and the other adult(s) is (are) not. The share of those living in households where there is full employment increased in all but three of the 15 countries. The share of people in workless households also increased in most countries, and the share of persons in "mixed" households (those with two or more adult households with only one earner) declined in all 15 countries during the ten-year period. Overall, the evidence suggests that employment polarisation took place in ten countries. Exceptions are the Nordic countries, where the share of persons in fully-employed households slightly decreased and Greece and the United States, where the proportion of those in workless households decreased.

Of course, the *quantity* of work across households is only part of the story. The *wage rates* that people get when they work must be added to the equation in order to explain changes in earnings distribution. Here the story varies across countries. As described in OECD (1996), there has been little common trend across countries in wage rates of those in full time work. Large increases in earnings dispersion certainly

have taken place in some countries (the United Kingdom, the United States), but not in others (Canada, Finland, Germany). But of course trends in earnings are inextricably related to trends in employment. Low-skilled (low-wage) workers are much more likely to be without work than higher-skilled (high-wage) workers.

In order to assess the possible effects of employment concentration for trends in income distribution, aggregate changes in inequality can be decomposed into three parts,⁸ on the basis of the three employment groups (persons in fully employed, workless and “mixed” households):

- first, a “within group” inequality effect: if inequality in one of the three groups increases, overall inequality would increase, population shares held constant;
- second, a “between group” effect: if two groups had the same internal distribution, but the difference between the average incomes of the groups widens, overall inequality would increase, population shares held constant;
- finally, a “structural” effect, brought by the changing shares of each of the three groups in the population.

In ten of the 15 countries considered, the “within group” effect was the main contributor to changes in overall inequality, both up and downwards: Austria, Canada and Denmark for decreases in inequality, and Australia, Finland, Italy, Mexico, the Netherlands, Norway and the United Kingdom for increases. This means that in a majority of countries, changes in overall inequality were driven by increased (or decreased) income dispersion *within* different households’ employment categories. The effect of growing disparities *between* the three employment categories played a major role only in Germany and the United States, pushing overall inequality up. The structural effect, *i.e. changing shares* among the three employment categories, made a significant contribution to inequality reduction in France and Greece. This effect was also somewhat important in the Nordic countries, but playing an inequality-increasing role there.

Poverty rates for those living in households with two or more earners are very low (under 1 per cent of two-earner households in Austria, Belgium, Denmark, Germany, Norway and Sweden and under 6 per cent in all countries other than Mexico and Turkey, where the poverty rate exceeds 13 per cent) and these rates have been on a downward trend since the 1980s. On the other hand, poverty rates for those in workless households are very high – over 18 per cent in all countries other than Belgium and Denmark, and over 40 per cent in Canada, Germany, Ireland and the United States. The poverty rate of workless households has generally been increasing (but did actually decrease considerably in Australia, Denmark, Norway and Sweden). In most countries, people in workless households are represented three to five times as often in the poor population than they are in the total working-age population.

²⁴

The importance of work in explaining income distribution and poverty changes can be seen as the primary cause of many changes in the relative income of particular groups. Why has the position of youths declined? At least in part because employment rates have declined. What explains the very low income of lone parents? The very low employment rates are often the key factor. Hence the striking result referred to above that lone parents in Sweden are not at greater risk of poverty than others in the population is explained mainly by the fact that a large majority of Swedish single parents are working: almost nine out of ten, whereas in most other countries the share of single parents who are working is between 50 and 70 per cent. Poverty rates for single parents who do not work are very high in all countries and, with the exception of Mexico, are at least twice as high as those for working single parents. In Canada, Germany, Italy, the United Kingdom and the United States, more than 60 per cent of non-working single parents are poor.

Driving factors: II. Transfers and taxes

Across the income distribution, most household income is market income – income which comes from work, or from the returns to investment. However, governments tax that income and distribute cash transfers, so altering *disposable* income. This is illustrated in Figure 2, which compares changes in the distribution of market incomes over the past ten years with changes in the distribution of disposable incomes. When juxtaposing these trends, it can be seen that in almost all countries the gains of the highest income quintile are substantially higher for market income than for disposable income. By contrast, market income shares for the lowest quintile (and most often for both lowest quintiles) declined substantially (exceptions being Ireland and, to a lesser extent, the United States). In a great majority of countries, the workings of tax/transfer systems resulted in disposable household incomes falling by less than the fall in market incomes for the lower quintiles, and in four countries the falling trend of market incomes actually was reversed (Australia, Canada, Denmark and France). However, in Italy and the Netherlands, both market and disposable income fell by the same amount for the lowest quintile and in Germany the income losses of the lowest quintile were higher after than before taxes and transfers.

(Re)distributive patterns of family and unemployment benefits

Benefit systems redistribute income. But they do not primarily redistribute from rich to poor. Rather, they redistribute from young to old, from those who work to those who do not, and from childless families to families with children. In most countries (Australia and New Zealand being exceptions), most benefits are based not on the income of the individual or family, but on the circumstances of the family and the individuals that make up the family more generally.

Figure 2. **Gains and losses by income quintiles: market income and disposable income**

Working-age population, mid-1980s to mid-1990s

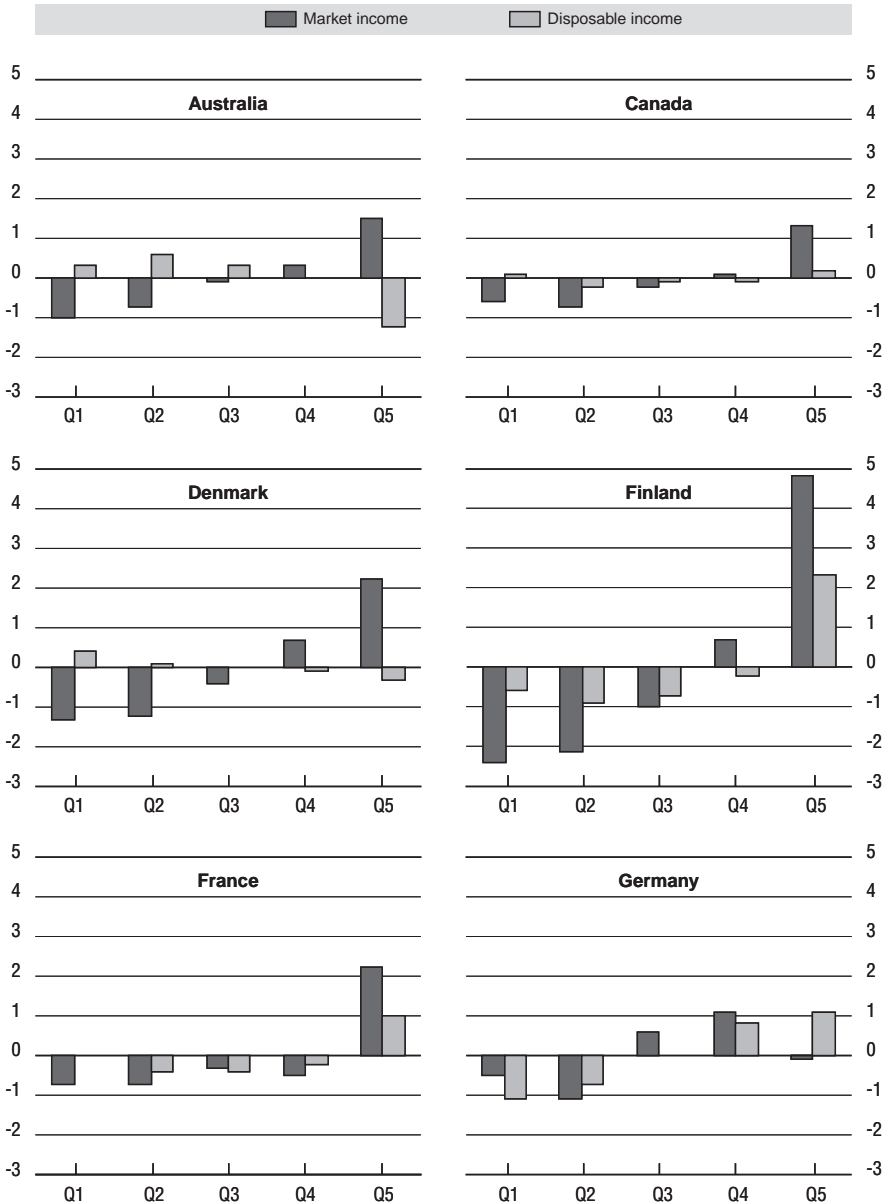


Figure 2. **Gains and losses by income quintiles: market income and disposable income** (cont.)

Working-age population, mid-1980s to mid-1990s

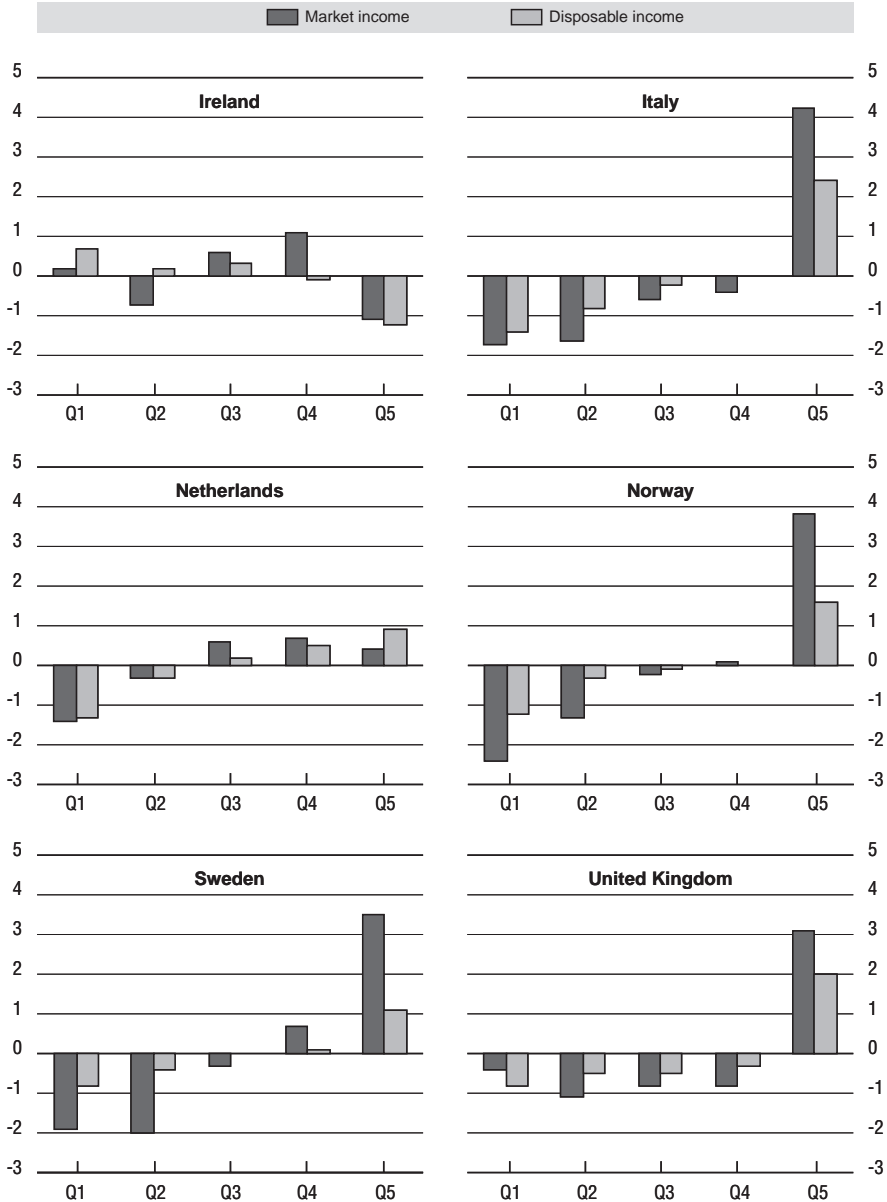
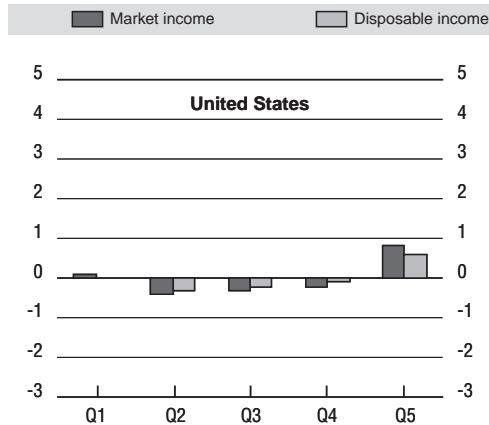


Figure 2. **Gains and losses by income quintiles: market income and disposable income (cont.)**

Working-age population, mid-1980s to mid-1990s



Note: Q1 corresponds to the lowest income quintile, Q5 to the highest income quintile. Quintiles were built on the basis of final disposable adjusted income. Changes are in percentage points and sum up to 0.

Source: OECD questionnaire on distribution of household incomes (2000).

Even so, the distribution of non-pension transfers altogether was slightly progressive in all OECD countries studied in the mid-1990s – progressive in the sense that higher transfer shares are going to poorer than to richer income groups. In most countries, between one-third and 40 per cent of those transfers went to the lower income groups in the working-age population (bottom three deciles), and between 20 per cent and 25 per cent to the higher income groups (top three deciles). The progressive pattern was stronger in Australia, Ireland, the United Kingdom and the United States where 50 to 60 per cent went to the lower income groups, and only 10 to 20 per cent to the higher incomes. All these countries rely on means-tested benefits to a greater extent than most other countries, so this pattern is not surprising – it simply confirms the effect of these policies in restricting benefit entitlements of higher-income groups.

Non-pension transfers in particular have become more progressively distributed over the past ten years: this has happened in 12 of the 16 countries where such data are available. In ten of those countries, the lower three deciles of the income distribution were the sole beneficiaries of this trend, and in two Nordic countries – Finland and especially Sweden – middle-income groups also benefited from this trend in distribution. In two Southern European countries – Greece and Italy – the middle-income classes benefited considerably from these changes

at the expense of both lower- and higher-income groups. Canada and, in particular, the United States stand apart. In these countries a change towards a less progressive distribution of non-pension transfers among the working-age population took place.

Förster and Pellizzari (2000) compared the distributional patterns of two of the most important benefits among non-pension transfers: family cash benefits, and unemployment benefits.⁹ For *family cash benefits*, two groups of countries emerge:

- Australia, Canada, Denmark, France, Ireland, the Netherlands, the United Kingdom and the United States all show a progressive distribution of family cash benefits; moreover, most of these countries (the exceptions being Denmark, the Netherlands and the United States) also clearly moved towards a more progressive distribution during the last decade;
- in Austria, Belgium (data for 1995 only), Finland, Hungary, Norway and Sweden in the mid-1980s, family cash benefits seemed to be distributed more equally across the income distribution with an emphasis on the middle class; a distributional pattern sometimes described as “targeted to the middle classes”. However, Hungary moved towards a progressive pattern in the 1990s.

By 1995, in all countries considered except Belgium, the proportion of family benefits going to the bottom three deciles was higher than the proportion going to the top three income deciles. Family benefits, therefore, played a role in the redistribution of incomes to lower segments among the working-age population.

As to *unemployment benefits*, the country patterns are different:

- unemployment benefits show a clear progressive pattern in seven countries: Australia, Austria, Belgium, Finland, Hungary, Ireland and the United Kingdom. In Hungary, they became considerably more progressively distributed over the years, while their distribution became somewhat less progressive in the United Kingdom. In Ireland, changes favoured lower middle and middle income groups and in Australia and Finland, no significant change occurred;
- in the remaining seven countries, unemployment benefits are almost equally distributed across income groups of the working-age population. This is particularly the case in the Netherlands. In Canada, Norway, Sweden and, to a lesser degree, Denmark, the distribution of unemployment benefits showed some signs of a “targeting to the middle class”. And in France and the United States, the distribution of these benefits moved from such a pattern to a slightly regressive one.

Taken together, family cash benefits seemed to be a more important tool for redistributing incomes from higher to lower segments than unemployment benefits in Canada, Denmark, France, the Netherlands and the United States, whereas the inverse was the case in Austria, Belgium, Finland and Hungary. In Australia, Ireland and the United Kingdom, both benefits played an important redistributive role. Only in Norway and Sweden were both benefits more middle-income class oriented. This has to be seen against the background that, in a majority of the countries considered here, the prime aim of those benefits is not a redistribution of incomes towards lower income groups but the maintenance of the income status in case of child rearing and compensation for loss of employment, regardless of income status.

Overall effects of tax/transfers among the working-age population

Just because a benefit system is proportional (in the sense that benefits are equally distributed across the population) does not mean that it plays no role in redistributing income. Poor households (by definition) have less other income than richer ones, so the higher is the level of a benefit, the greater will be the reduction in inequality, even if everyone receives exactly the same amount of benefit. It follows that just because a benefit system is not particularly targeted on the poor, it cannot be concluded that the effects on poverty are necessarily small.

Table 7 summarises the distribution of all benefit payments taken together, together with tax payments and social security contributions of employees across the income distribution of the working-age population. *On average* the bottom 30 per cent of the population do get more than 30 per cent of total benefit payments, but not by much. The top 30 per cent of the population get, on average, over 25 per cent of all benefits. In other words, the benefit system does not have a very different effect on final income inequality from paying everyone in the population a fixed amount of benefit, regardless of income level.

Of course, averages hide a lot of cross-country variation. Australia, the United Kingdom, the Netherlands, Ireland and some of the Nordic countries target payments towards the poorer end of the distribution to a much greater extent than Austria, Hungary, Italy and Greece, where the poorest 30 per cent of the population receive less than 30 per cent of all benefit payments. In Turkey and Mexico, benefits are even more likely to be targeted towards richer groups, reflecting “dual” labour markets – individuals have to be in the “modern” sectors of the economy to qualify for social insurance.

Taxes, on the other hand, are very strongly related to income. Of course, this is not the full story as regards taxes – the figures in the table exclude consumption taxes and social security contributions paid by employers, both of which bear much more heavily on lower income groups than the personal income taxes and

Table 7. **Redistribution by government: proportion of total transfers (taxes) received (paid) by different income deciles of the working-age population**

	General government transfers			Taxes		
	Poorest 30%	Middle 40%	Richest 30%	Poorest 30%	Middle 40%	Richest 30%
Panel A: Distribution of benefits received and taxes paid						
Australia, 1994	62.3	31.1	6.5	3.7	31.1	65.1
Austria, 1993	26.8	40.9	32.3	..	..	..
Belgium, 1995	36.0	41.6	22.5	3.9	32.6	63.5
Canada, 1995	41.5	37.7	20.8	6.2	33.4	60.4
Denmark, 1994	43.4	38.9	17.7	14.1	37.2	48.7
Finland, 1995	43.2	40.4	16.4	9.8	33.4	56.8
France, 1994	35.6	39.3	25.1	8.7	23.5	67.9
Germany, 1994	31.7	37.6	30.7	10.0	36.5	53.6
Greece, 1994	20.9	37.7	41.5	..	..	..
Hungary, 1997	28.7	42.8	28.5	..	..	..
Ireland, 1994	47.1	38.1	14.8	3.3	30.3	66.4
Italy, 1993	20.5	45.0	34.5	6.7	31.0	62.3
Mexico, 1994	13.7	27.2	59.1	..	..	..
Netherlands, 1995	45.8	36.1	18.1	11.7	36.1	52.2
Norway, 1995	45.1	36.6	18.3	10.2	36.1	53.8
Sweden, 1995	33.7	40.5	25.8	11.0	35.8	53.3
Turkey, 1994	15.2	40.2	44.6	..	..	..
United Kingdom, 1995	54.5	33.9	11.7	6.0	32.0	62.0
United States, 1995	41.4	35.5	23.0	6.3	28.4	65.3
Average level	36.2	37.9	25.9	8.0	32.7	59.4
Panel B: Changes in redistribution, mid-1980s to mid-1990s, percentage points						
Australia, 1984-1994	4.2	-0.3	-4.0	-6.6	-3.1	9.8
Austria, 1983-1993	2.3	-0.3	-2.0	..	..	..
Canada, 1983-1994	-0.3	-0.6	0.9	-0.8	-0.7	1.4
Denmark, 1983-1994	5.1	-1.4	-3.7	0.2	-2.2	2.0
Finland, 1986-1995	2.2	1.5	-3.8	-1.1	-1.0	2.1
France, 1984-1994	2.3	0.8	-3.1	-3.8	-2.3	6.1
Germany, 1984-1994	-2.2	0.9	1.3	-1.1	2.9	-1.9
Greece, 1988-1994	4.1	1.8	-5.9	..	..	..
Hungary, 1991-1997	-1.4	0.7	0.7	..	..	..
Ireland, 1987-1994	4.8	-2.9	-1.9	-0.5	-0.5	1.0
Italy, 1984-1993	-5.4	3.3	2.1	-4.1	-1.1	5.2
Mexico, 1989-1994	8.7	-0.5	-8.2	..	..	..
Netherlands, 1985-1995	5.0	-2.2	-2.8	-1.7	0.6	1.1
Norway, 1986-1995	3.2	-1.3	-2.0	-2.9	-1.8	4.6
Sweden, 1983-1995	1.3	0.6	-1.9	-1.3	-0.7	2.0
Turkey, 1987-1994	1.2	-1.6	0.4	..	..	..
United Kingdom, 1985-1995	0.4	1.3	-1.7	-1.3	-3.7	5.0
United States, 1985-1995	-2.0	-0.6	2.6	1.0	-1.4	0.4
Average change	1.8	0.0	-1.7	-1.7	-1.1	2.8

Notes: General government transfers include all public cash transfer benefits. Taxes include all direct income taxes, including employees social security contributions. Income groups were built on the basis of final disposable adjusted income.

Source: OECD questionnaire on distribution of household incomes (2000).

employee social security contributions which are included. But nevertheless, it is readily apparent that taxes have a great effect in equalising incomes across households.

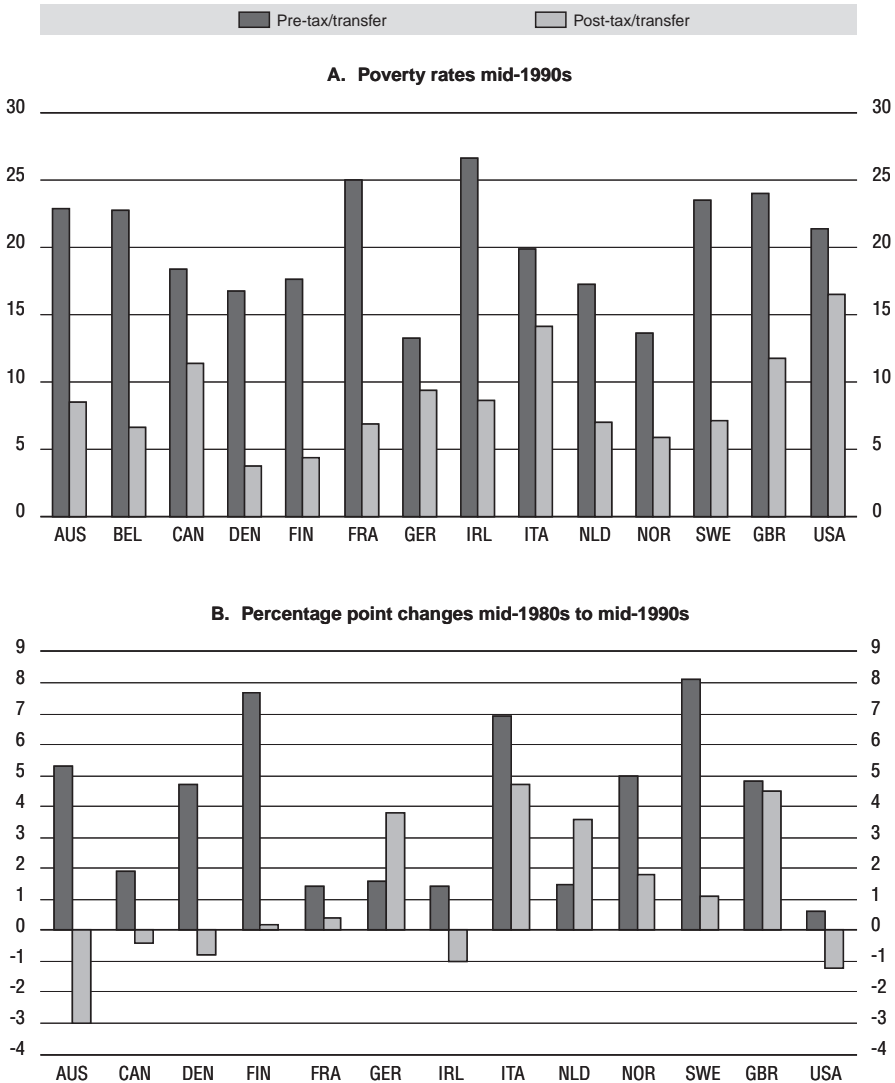
The trend has been towards a greater share of taxation being paid by higher income groups. This is *not* the same as saying that there is greater progressivity in the tax system than previously. In fact, if compared with changes in the distribution of market income, only in Australia, France, Ireland and the United Kingdom has the share of taxes paid by the top 30 per cent gone up significantly *more* rapidly than market income. In the Nordic countries, the increases in taxes paid by the upper income groups was less than the increase in their market incomes – in other words, their average tax rate fell relative to lower income groups.

The analysis above referred to the distribution of a given overall level of non-pension transfers among the working-age population. However, although a specific transfer might be distributed more progressively in one country than in another, its weight for the lower income groups might be higher in another country because of a higher overall level of this transfer. An equally important question therefore concerns the relative importance of those transfer payments in the disposable incomes of lower, middle and higher income groups. Förster and Pellizzari (2000) analysed non-pension transfer shares in the disposable income of income groups. Those shares rose for the working-age population as a whole in the last ten years, from below 10 per cent on average, to 11.4 per cent. The increase for the lower income groups, however, was much stronger: it varied on average across the countries from around one-quarter of their disposable income to around one-third. Those increases were recorded in *all* countries but were strongest in the four Nordic countries (where more than 10 percentage point increases were recorded). This underlines the growing importance of non-pension transfers for lower income groups of the working-age population.

Poverty alleviation through taxes and transfers

Results from earlier analysis based on a smaller sample of five OECD countries (Burniaux *et al.*, 1998, Oxley *et al.*, 1999) showed that tax/transfer systems reduced substantially aggregate poverty rates in those countries. This is confirmed by the results from the present analysis, which are available for 14 countries and which consider poverty among the working-age population. Whereas poverty rates based on pre-tax and transfer incomes amounted to between 14 and 26 per cent in the countries studied, post-tax and transfer rates were considerably lower – between 4 and 17 per cent. Furthermore, this effectiveness tended to strengthen in a majority of countries as is shown in Figure 3. While pre-tax/transfer poverty rates rose in all countries, on average by more than 3 percentage points, post-tax/transfer poverty rates fell in half the countries and

Figure 3. Poverty rates before and after taxes and transfers, working-age population



Note: Poverty rates defined as number of persons in households below 50 per cent of median adjusted disposable income in per cent of the total population. Taxes include all direct income taxes including employees social security contributions. Transfers include all public cash transfer benefits.

Source: OECD questionnaire on distribution of household incomes (2000).

decreased by less than the pre-tax/transfer poverty rate in the others, except in Germany and the Netherlands. Absolute rates of reduction in poverty were higher in Australia, Belgium, France, Ireland and the Nordic countries (Norway excepted), and lower in Canada, Germany, Italy and the United States.

Driving factors: III. Underlying demographic changes

Putting the two pieces of the equation together – trends in market income and trends in government tax and transfer policy – gives most of the information necessary to understand the overall picture of income distribution. One last piece of the jigsaw puzzle remains to be inserted: changes in the demographic structure of the population.

There are considerable differences between countries and country groups as to the *levels* of these shares: in the Nordic and the Continental European countries, children are 20 per cent of the population; in the Anglo-Saxon countries, they account for around 25 per cent, and in Mexico and Turkey the share of children in the population is much higher, around 40 per cent.

At the same time, there have been very large changes in the structure of populations in OECD countries. In nearly all countries, the proportion of children in the total population decreased from the mid-1980s to the mid-1990s, on average by some 2 percentage points.¹⁰ Similarly, the share of young people – those aged 18 to 25 – fell in most countries, on average by 1 percentage point. On the other hand, the proportion of persons aged 65 and over increased in all countries but Sweden, on average by over 1 percentage point (Förster and Pearson, 2000).

The changes do not stop there. The fewer children are much more likely to be in households where there is only one adult – the proportion of lone parent families has been increasing. In the Anglo-Saxon countries and the Nordic countries, between 10 and 20 per cent of those households with children live in lone parent households. In the Continental European countries their share is just below 10 per cent, and in the Southern European countries, Turkey and Mexico, below 5 per cent. The proportion of children who are in lone parent households rather than households with two or more adults has also been rising, and is around 25 per cent of the total in Sweden. Within the working-age population, fewer people live in households without children than in households with children, but their share increased from one-third to almost 40 per cent in the ten years from the mid-80s to the mid-90s.

Furthermore, mainly as a consequence of population ageing (but also reflecting an increased preference for living alone among younger age groups), the average household size has also been falling for the last ten to 20 years throughout the OECD area, and is close to being just two people in some of the Nordic

and Continental European countries. The average household size is closer to three in the Southern European countries and still above four in Mexico and Turkey.

Such changes may not sound very significant. In fact, taken together they amount to a huge change in the structure of the population, in many countries to an extent unprecedented in recent times outside of war, famine or epidemic. Here, it is worth noting simply that these demographic trends *directly* affect trends in inequality. If older people have less income than younger people, then as there are more of them in the population, so income distribution will apparently widen. Similarly, if small households are poorer than large ones, so will the trends described above lead to a stretching out of the income distribution, regardless of whether the average income of small households is changing relative to larger ones.

CONCLUSIONS: 12 STYLISTED FACTS ON TRENDS IN INCOME INEQUALITY AND POVERTY

Overall distributional trends and movements at the bottom

- i) There has been no generalised long-term trend in the distribution of disposable household incomes since the mid-1970s. However, during the more recent period (mid-1980s to mid-1990s), income inequality has increased in at least half the countries, while none of the remaining countries recorded an unambiguous decrease in inequality.
- ii) There is no trend towards a “hollowing out” of the income distribution at the expense of the middle-income class. Simultaneous gains of both the lower and higher incomes relative to the middle incomes occurred in only a few countries (Belgium and, marginally, France and the United States during the past decade, and Canada and Finland over the last 20 years).
- iii) Relative poverty rates have remained broadly stable over the last ten years. Some countries have, however, experienced declines (in particular Belgium and Denmark) and some others increases (in particular Italy and the United Kingdom). Poverty rates based on constant thresholds fell in most of the countries in which real incomes increased.

Changes in relative positions of specific social groups

- iv) In those countries where inequalities increased, this happened mostly among the working-age population, whilst there were fewer changes among the retirement-age population.

- v) Changes in income distribution in the past ten years generally favoured the prime-age and elderly age groups, particularly those around retirement age. Younger age groups lost ground, in particular those aged 18 to 25, reflecting delayed labour market entry. Similarly, poverty rates for the elderly fell in all but four countries, youth poverty rates increased, and child poverty rates increased slightly in a number of countries.
- vi) Relative income levels of single parents and persons in workless households are very low and have worsened in a number of countries.

Driving factors

- vii) Market income inequality has widened in every country. The increased dispersion from gross earnings has been the main cause. A variety of factors have explained this, in turn, increased inequality in earnings themselves and a trend towards “employment polarisation” in many countries, leading to a simultaneous increase in “work-rich” and “work-poor” shares of households.
- viii) Capital and self-employment incomes are distributed more unequally than earnings. However, as their share in total disposable income is lower, their contribution to levels and, in most cases, changes in overall inequality is less important than that of earnings (with the notable exception of Italy).
- ix) Joblessness is the main cause of poverty.

Distributional effects of public transfers and taxes

- x) The effectiveness of taxes and transfers in reducing inequality and poverty has increased. As a result, the increase in market income inequality was not, or not entirely, translated into higher inequality of disposable incomes for the working-age population.
- xi) Targeting of benefits has increased. The shares of family cash benefits and/or unemployment benefits going to lower income groups among the working-age population increased in a majority of countries.
- xii) Non-pension transfers form an increasingly large part of the income of low-income households among the working-age population in all countries.

NOTES

1. The full analysis upon which this article is based is reported in Förster and Pellizzari (2000).
2. "Household income" is often used synonymously with "household resources". It is not: households have access to goods and services provided to them at no cost by the state; indirect taxes affect the purchasing power of a given amount of resources; barter, charity and mutual exchange between and within families play a greater or lesser role in different countries. The absolute level of measured income inequality or poverty, however interesting, cannot be used to make reliable cross-country comparisons. But *trends* in income distribution and poverty, if measured on a comparable basis, do permit a number of key findings to be drawn from the analysis.
3. The data for Hungary refer to the period 1991 to 1997.
4. This country experienced a deep recession at the beginning of its economic transition (between 1990 and 1993/94) during which real incomes fell for the population as a whole. At the same time, the distribution of those incomes flattened slightly.
5. This means that other dimensions, such as benefits in-kind, consumption, wealth, deprivation or social exclusion have not been taken into account for the analysis (for a conceptual discussion of using different criteria and methods in the frame of international comparisons, see Förster, 1994).
6. As public transfers are the main component of income for retired persons in most OECD countries, an increasing transfer share in the incomes of the entire population, and effects on inequality, might simply reflect the increased share of pensioners in the population.
7. It should be noted that governments' redistribution is not only confined to taxes and transfers but also influences market distribution directly, *e.g.* via minimum wage policies.
8. Förster and Pellizzari (2000) used the MLD as the summary inequality index which allows for this decomposition. Overall trends on the basis of the MLD differ somewhat with respect to results obtained from other indicators (see annex). For the methodology of the decomposition, see Burniaux *et al.* (1998).
9. Other cash transfers going to the working-age population, such as housing benefits or social assistance payments have not been included in the detailed analysis because information was often not available separately; lumped together, these "other" transfers constitute approximately 10 to 20 per cent of all non-pension transfers in most countries (30 per cent in Sweden and the United Kingdom).
10. Exceptions were Germany, Sweden, the United Kingdom and the United States.

Annex

**TRENDS IN FOUR INCOME INEQUALITY INDICATORS
FOR THE ENTIRE POPULATION**

	Levels		Absolute change ¹							
	Gini coefficient mid-90s	P90/P10 decile ratio mid-90s	Gini		Decile ratio		SCV		MLD	
			A	B	A	B	A	B	A	B
Australia	30.5	3.9	2.1	-0.7	0.2	-0.4	3.2	1.2	1.8	0.5
Austria	23.8	3.0	..	0.2	..	0.1	..	1.4	..	-0.2
Belgium	27.2	3.2	..	1.2	..	0.0	..	9.1	..	0.4
Canada	28.5	3.7	-0.8	-0.4	-0.6	-0.2	4.0	0.7	-2.5	-1.0
Denmark	21.7	2.7	..	-1.1	..	-0.2	..	0.4	..	-1.5
Finland	22.8	2.8	-2.8	2.1	-0.5	0.1	-3.7	7.8	-3.0	1.2
France	27.8	3.4	..	0.3	..	0.1	..	6.9	..	-0.8
Germany	28.2	3.7	..	1.7	..	0.4	..	-2.2	..	1.6
Greece	33.6	4.7	-7.7	0.0	-2.1	-0.2	-47.9	1.1	-11.5	-0.4
Hungary	28.3	3.4	..	-0.9	..	-0.2	..	1.2	..	-2.9
Ireland	32.4	4.2	..	-0.6	..	-0.1	..	32.0	..	-3.0
Italy	34.5	4.6	..	3.9	..	0.8	..	18.1	..	6.7
Japan	26.5	3.3	-1.4	1.2	-0.1	0.2	-5.8	5.3	-1.0	1.5
Mexico	52.6	11.3	-2.0	2.3	-3.9	1.8	20.8	-28.9	-5.0	-6.4
Netherlands	25.5	3.2	0.7	2.1	0.1	0.4	2.7	2.5	0.6	2.3
Norway	25.6	3.0	..	2.2	..	0.1	..	2.3	..	3.1
Sweden	23.0	2.7	-1.6	1.4	-0.2	0.1	-2.1	8.0	-1.8	2.0
Switzerland	26.9	3.1	..	..	..	..	..	..	..	..
Turkey	49.1	6.8	..	5.6	..	0.3	..	..	..	..
United Kingdom	31.2	4.1	3.8	2.5	0.5	0.5	10.3	8.6	3.1	3.0
United States	34.4	5.5	2.7	0.4	0.8	-0.2	7.7	1.2	3.2	0.5

Notes:

A = Mid-70s-mid-80s.

B = Mid-80s-mid-90s.

For Hungary, the period refers to 1991-1997.

1. Absolute change is the difference in the value of the index.

Source: OECD questionnaire on distribution of household incomes (2000).

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