



OECD Labour Market and Social Policy Occasional Papers No. 42

Trends and Driving Factors in Income Distribution and Poverty in the OECD Area

**Michael Förster** 

https://dx.doi.org/10.1787/488747757407







Organisation de Coopération et de Développement Economiques Organisation for Economic Co-operation and Development OLIS : 11-Aug-2000 Dist. : 14-Aug-2000

**English text only** 

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# DEELSA/ELSA/WD(2000)3 Unclassified

### LABOUR MARKET AND SOCIAL POLICY- OCCASIONAL PAPERS NO. 42

## TRENDS AND DRIVING FACTORS IN INCOME DISTRIBUTION AND POVERTY IN THE OECD AREA

Michael F. Förster, Assisted by Michele Pellizzari

English text only

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### SUMMARY

1. This paper summarises trends and driving factors in income distribution and poverty in 21 OECD Member countries analysing separately the working- and the retirement-age populations. Shifts in relative incomes in the past ten years generally favoured prime-age and elderly age groups. Persons living in multi-adult households have seen their income shares rise somewhat, especially in households without children, or when there are two or more earners present. On the other hand, younger age groups generally lost ground, and relative income levels of single parents and persons in households with no earners tended to weaken further in many countries.

2. 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 about half of the OECD countries studied, while none of the remaining countries recorded an unambiguous decrease in inequality. Gross earnings and other market income were main contributors to widening inequality at the household level, through channels of increased dispersion and employment polarisation. This increase in market income inequality was not, or not entirely, translated into higher inequality of disposable incomes for the working-age population, as both transfers and taxes off-set the effects of earnings and capital/self-employment income on the distribution. In most countries, the redistributive impact of the tax-transfer system increased. Public transfers played an important role in the redistribution of incomes to lower-income segments, in particular among the working-age population. The shares of family and other benefits going to lower incomes among the working-age population increased in a great majority of countries, and the part of these transfers in the incomes of poorer working-age adults increased in all countries.

3. With a few exceptions, relative poverty rates remained broadly stable over the last ten years, while poverty based on constant income thresholds fell in most countries in which real incomes increased. The share of both elderly and children in the poor population decreased over the last ten years in most countries. However, poverty rates of children increased somewhat in a number of countries, while poverty rates of the elderly decreased. Joblessness is a key factor in explaining why poverty often increased for groups at risk. In a number of countries, households with one earner also have above-average poverty rates, indicating the existence of a working-poor phenomenon. The effectiveness of tax/transfer systems in alleviating poverty among the working-age population increased in a majority of Member countries.

### RESUME

1. Ce document résume les tendances et les facteurs d'évolution dans la distribution des revenus et pauvreté dans 21 pays Membres de l'OCDE, en analysant séparément la population d'âge actif et la population à la retraite. Au cours des dix dernières années, l'évolution des revenus relatifs a été, de façon générale, favorable aux groupes des personnes d'âge très actif et des personnes âgées. Les personnes vivant dans des ménages de plusieurs adultes ont vu leurs parts de revenu augmenter quelque peu, en particulier dans les ménages sans enfant et dans les ménages à deux revenus ou plus. En revanche, les groupes d'âge plus jeunes ont perdu du terrain et les niveaux de revenus relatifs des parents isolés et des personnes vivant dans des ménages sans apporteurs de revenus ont eu tendance à s'affaiblir encore.

2. Depuis le milieu des années 70, il n'y a pas eu d'évolution généralisée durable de la distribution du revenu disponible des ménages. Toutefois, sur la période la plus récente (milieu des années 80-milieu des années 90), les inégalités de revenus ont augmenté dans près de la moitié environ des pays de l'OCDE étudiés, tandis qu'aucun pays restants n'a enregistré, de façon claire, une baisse dans les inégalités. Les gains salariaux bruts et autres revenus marchands ont été la principale cause d'accroissement des inégalités au niveau des ménages, par le biais de la dispersion accrue et la polarisation de l'emploi. Cet accroissement de l'inégalité des revenus marchands ne s'est pas traduite ou pas intégralement, par une inégalité accrue du revenu disponible pour la population d'âge actif car les transferts et les impôts ont compensé les effets sur la répartition des gains salariaux et des revenus du capital/du travail indépendant. Dans la plupart des pays, l'impact du système d'imposition et de transfert sur la redistribution s'est accru. Les transferts publics ont également joué un rôle important dans la redistribution des revenus aux segments à faible revenu, en particulier parmi la population d'âge actif. La part des prestations familiales et autres allant aux faibles revenus parmi la population d'âge actif a augmenté dans la majorité des pays, et la part des ces transferts dans le revenu des adultes plus pauvres d'âge actif a augmenté dans tous les pays.

3. A quelques exceptions près, les taux de pauvreté relatifs sont restés stables dans l'ensemble sur les dix dernières années alors que la pauvreté calculée sur la base des seuils de revenus constants a baissé dans la plupart des pays où le revenu réel a augmenté. La part des personnes âgées et des enfants dans la population des pauvreté des enfants ont quelque peu augmenté dans un certain nombre de pays tandis que les taux de pauvreté des personnes âgées ont diminué. Dans un certain nombre de pays les ménages à revenu unique ont eux aussi des taux de pauvreté supérieurs à la moyenne, ce qui indique l'existence d'un phénomène de pauvreté active. L'efficacité des systèmes d'impôts/de transferts pour soulager la pauvreté de la population d'âge actif s'est accrue dans la majorité des pays Membres.

### TABLE OF CONTENTS

SUM	MARY		3
TRE	NDS IN	INCOME DISTRIBUTION AND POVERTY IN THE OECD AREA	7
1.	Introdu	ction and "stylised facts"	7
PAR	Г 1: INT	TERNATIONAL TRENDS	10
2. 3. 4.	2.1 2.2 2.3 Driving 3.1 3.2	l trends in the distribution of income Summary results from national studies Summary results from analyses of the OECD questionnaire "Winners" and "losers" of income changes g factors of changing income distributions The effects of shifts in income components on inequality changes The role of employment concentration and polarisation on changes in inequality ibutive effects of public transfers Transfers to the working-age population Pensions	10 11 11 13 16 16 18 20 21 24
5.		Population groups at risk. Effectiveness of taxes and transfers in alleviating poverty	24 25 25 27 31
PAR	Г 2: СО	UNTRY-SPECIFIC TRENDS	34
ANN	EX 1. C	CONCEPTS, METHODS AND DATA	53
1. 2. 3. 4.	Measur Measur	come concept and income unit ring income inequality ring income poverty urce and nature of the data	53 56 66 68
ANN	EX 2. T	ABLES AND FIGURES	74
Table Table		Overall trends in income distribution: summary results for the entire population Trends in inequality indicators for the entire population, the working-age	74
Table Table Table	e 2.4.	population and the retirement-age population Relative disposable incomes and population shares, by age groups Relative disposable incomes and population shares, by family types Relative disposable incomes and population shares, by degree of work attachment of households	75 78 80 82
Table	e 3.1.	Allocation of income components across three income groupes, working-age population	82 83
Table	e 3.2.	Contributions of income components to overall inequality, working-age population	86
Table	e 3.3.	Decomposition of changes in total inequality, working-age population	80 87

Table 3.4.	Changes in households' employment concentration: population shares and average	00
Table 2.5	incomes.	90 91
Table 3.5.	Decomposition of changes in total inequality, by concentration of employment	91 92
Table 4.1.	Allocation of total public transfers across age groups, entire population	92
Table 4.2.	Share of public transfers in total disposable income, for three income groups – Non-pensions transfers (working-age population) and pensions (retirement-age	
	population)	93
Table 5.1.	Trends in poverty using a relative threshold	94
Table 5.2.	Trends in poverty using a constant threshold	96
Table 5.3.	Decomposition of changes in overall relative poverty	98
Table 5.4.	Poverty rates, shares and relative risk indices, by age groups	99
Table 5.5.	Poverty rates, shares and relative risk indices for persons living in selected family	
	types	101
Table 5.6.	Poverty rates, shares and relative risk indices, by work attachment	103
Synthesis tab	le 1: Trends in income distribution since 1970 – results from national studies	104
Synthesis tab	le 2: Trends in income poverty since 1970 – results from national studies	113
Figure 2.1.	Trends in actual and 'inequality adjusted' real mean incomes	117
Figure 2.2.	Gains and losses by disposable income quintiles, entire population	119
Figure 2.3.	Generalised Lorenz curves for real disposable income, entire population	123
Figure 2.4.	Changes in relative disposable income by age groups, entire population	127
Figure 2.5.	Changes in relative disposable income by family types, working-age population	130
Figure 3.1.	Gains and losses by income quintiles, market and total disposable income, working-age population	133
Figure 3.2.	'Within', 'Between' and structural effects of employment concentration on total	
0	inequality, persons in households with head below 65	136
Figure 4.1.	Percentage point changes in the distribution of public transfers across age groups	139
Figure 4.2.	Percentage point changes in the distribution of non-pension transfers across three	107
8	income groups, working-age population	140
Figure 4.3.	Panel A. Pseudo-Lorenz curves for family cash benefits, working-age population	142
Figure 4.3.	Panel B. Pseudo-Lorenz curves for unemployment benefits, working-age	
1.9010	population	144
Figure 4.4.	Percentage point changes in the distribution of old-age pensions across three	1
i iguie ii ii	income groups, retirement-age population	147
Figure 4.5.	Pseudo-Lorenz curves for old-age pensions, retirement-age population	148
Figure 5.1.	Pre-and post tax and transfer poverty rates, entire population	151
Figure 5.2.	Pre-and post tax and transfer poverty rates, entire population	151
Figure 5.3.	Pre-and post tax and transfer poverty rates, working-age population	152
Figure 5.4.	Poverty rates before and after taxes and transfers, specific population groups	155
1 iguie J. <del>4</del> .	Toverty rates before and after taxes and transfers, specific population groups	154
BIBLIOGRA	РНҮ	158

### TRENDS IN INCOME DISTRIBUTION AND POVERTY IN THE OECD AREA<sup>1</sup>

#### 1. Introduction and "stylised facts"

1. This paper summarises the main findings of analyses on the basis of a harmonised questionnaire on detailed distribution and poverty indicators derived from national micro-economic data. This questionnaire was conceived by the OECD Secretariat and returned by 21 Member countries<sup>2</sup>. Former analysis in the frame of this project referred to 12 Member countries<sup>3</sup> and results have been reported in OECD (1997), OECD (1999), Burniaux *et al.* (1998) and Oxley *et al.* (1999). The inclusion of additional nine countries<sup>4</sup> in the analysis reflects a greater variety of OECD societies and made it clearer whether one can speak of "OECD-wide" trends; some of the countries analysed have not been included in OECD-wide inequality and poverty comparisons so far. Furthermore, the present paper also considers the working-age population separately from the retirement-age population; looks in more detail at the distribution of different cash transfers; and looks at both relative and "absolute" poverty.

2. The paper is in two parts. Part 1 compares and contrasts national experiences. It looks first at overall trends in the income distribution, before moving on to considering what factors have been explaining changes over time. The distributive impact of transfers receives particular attention. This section also considers the role of employment polarisation. The last section in part 1 examines trends at the bottom of the income distribution, again looking at the factors which explain changes in poverty levels,

<sup>3</sup> Australia, Belgium, Canada, Denmark, Finland, Germany, Italy, Japan, Netherlands, Norway, Sweden, United States.

<sup>&</sup>lt;sup>1</sup> Michael Förster is Administrator in the OECD Directorate for Education, Employment, Labour and Social Affairs, and researcher with the European Centre for Social Welfare Policy and Research. The study benefited greatly from the analytical assistance of Michele Pellizzari, University Pompeu Fabra, Barcelona. We would like to thank Thai-Thanh Dang, Howard Oxley, Mark Pearson and Peter Scherer for helpful comments and suggestions.

<sup>&</sup>lt;sup>2</sup> The study would not have been possible without the co-operation and help of national authorities and experts who prepared the underlying data on the basis of national micro data analyses. These include George Matheson, Gerry Redmond and Peter Saunders (Australia), Alois Guger and Eva Latschka (Austria), Isabelle Standaert and Christian Valenduc (Belgium), Brian Murphy (Canada), Lars Pantman (Denmark), Esko Mustonen and Heikki Viitamäki (Finland), Jean-Michel Hourriez and Nadine Legendre (France), Markus Grabka (Germany), Theo Mitrakos and Panos Tsakloglou (Greece), Marton Medgyesi and Péter Szivosz (Hungary), Betrand Maitre and Brian Nolan (Ireland), Marco di Marco (Italy), Julio Boltvinik and Fernando Cortés (Mexico), Peter Heijmans and Hans de Kleijn (the Netherlands), Jon Epland (Norway), Thomas Petterson (Sweden), Stefan Burri (Switzerland), Murat Karakas and Mustafa Yanikoglu (Turkey), Asghar Zaidi (United Kingdom) and John Coder and Timothy Smeeding (United States).

<sup>&</sup>lt;sup>4</sup> Austria, France, Greece, Hungary, Ireland, Mexico, Turkey, Switzerland and the United Kingdom. Note that for Japan, only data for the "first wave" of the study were available and for Switzerland, no trend data were available. Most of the analyses in this paper are therefore confined to 19 Member countries.

including the tax/transfer system. Part 2 considers each country in turn, providing a brief summary of trends and the most likely explanations of what has been happening.

3. Twelve "stylised facts" can be drawn from this work. They are summarised below into four areas:

### 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 about half the countries, while non 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 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 twenty years).
- iii. Relative poverty rates have remained broadly stable over the last ten years. Some countries have 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. Movements of average incomes of the poor have sometimes been more notable than changes in the number of people with low incomes (in particular Ireland, Finland and France).

### 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 less 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, among the latter those around retirement age. On the other hand, younger age groups lost ground, in particular those aged 18 to 25. 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. The share of both the elderly and children in the poor population decreased over the last ten years in most countries.
- vi. Relative income levels of single parents and persons in workless households have weakened in many countries. Among the working-age population, persons living in multi-adult households have seen their relative incomes rise somewhat, especially in households without children, or when there are two or more earners present.

#### Driving factors

- vii. Market income inequality has widened. 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. Joblessness is a key factor in explaining why poverty has often increased for those aged 18 to 25 and single-parent families. Employment considerably reduces the risk of single parents being in poverty. In some countries (Canada, Denmark, Greece, Sweden, United Kingdom, Unites States), households with one earner have also experienced increasing poverty rates exceeding the average for the working-age population.

### 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. Apart from income taxes, public transfers also played an important role in the redistribution of incomes to lower-income segments, in particular among the working-age population. This effectiveness improved as the shares of family cash benefits and/or unemployment benefits going to lower incomes among the working-age population increased in a majority of countries.
- xii. Transfers also form an increasingly large part of the income of low-income households. The part of non-pension transfers in the incomes of poorer working-age adults increased in all countries.

### PART 1: INTERNATIONAL TRENDS

### 2. Overall trends in the distribution of income

4. Do changes in income inequality matter? There are several reasons why one might care about changes in the personal income distribution. One is the possible relationship between inequality and macro-economic growth. For a long time, economists tended to assume a trade-off between equality and efficiency, arguing that any redistribution would ultimately be at the expense of an economically productive factor. Recently, however, new research on this topic, e.g. in the frame of endogenous growth theories, has reconsidered this relationship. A number of authors provide evidence that a poor distribution of income might ultimately affect economic growth, through the channels of education, access to capital markets, as well as political and economic mechanisms (see, for instance, Bénabou 1996; Alesina and Rodrik 1994; Aghion and Bolton 1992).

5. Preferences for specific societal distribution paths might also affect views of economic performances. Those who are indifferent to changes in income distribution would measure the development of economic performance, for instance, by changes in real mean incomes. This is shown by the solid line in figure 2.1 which traces average real mean incomes for the entire population for several points in time since the mid-1970s (for nine countries) or mid-1980s (for the remaining nine countries). However, those who are concerned about income inequality would weight these outcomes depending on their distributional preferences. One such possible measure is the "distributionally adjusted real mean income" which is illustrated by the dotted line in figure 2.1. This measure -- proposed by Sen (1976) and discussed by Atkinson (1997) for the United Kingdom – weights the mean income by (one minus the Gini coefficient).

### [Figure 2.1 Trends in actual and "distributionally adjusted" real incomes, mid-1970s – 1990s]

6. These purely illustrative calculations for 11 countries -- those countries for which more than two data points were available -- show that economic growth might be assessed differently when taking account of distributional changes, for some countries more than for others. In six, the growth in real mean incomes would look somewhat less impressive, especially so in Italy, the Netherlands (during the recent period), the United Kingdom, and the United States, and less markedly in Australia and Germany. On the other hand, distributionally adjusted incomes increased by more than unadjusted ones in Finland and Greece, especially during the earlier period. In the remaining countries – France, Mexico and Sweden, there were no sizeable differences, or else differences in the earlier period were cancelled out by opposite movements in the later period<sup>5</sup>.

For seven countries, data points for the early 1990s were available. In Italy, the Netherlands and the United Kingdom, the major developments in discrepancies between distributionally adjusted and actual incomes seemed to have occurred in the late 1980s rather than the 1990s.

### 2.1 Summary results from national studies

7. A great number of national studies of trends and factors affecting income distribution has been undertaken in the recent decade in virtually all Member countries. A summary account of those studies was given in a literature survey on distribution trends in Burniaux *et al.* (1998), Annex 3. This literature survey has been updated, and synthesis table S.1 summarises the main findings from 27 Member countries. This enables the comparison of the analysis below with outcomes of national research. As national studies make use of different concepts of income and definitions of income inequality, the focus in table S.1 is on *changes* in income distributions during the past two to three decades and factors driving these changes, rather than on *levels*.

### [Annex Table S.1 Trends in income distribution since 1970: Results from national studies]

### 2.2 Summary results from analyses of the OECD questionnaire

8. The main results reported in the national studies above are confirmed by those of the harmonised OECD questionnaire. The evidence on trends in the distribution of income for 20 Member countries is summarised in table 2.1. This is based on developments in the Gini concentration coefficient of disposable household incomes, reported in the questionnaire<sup>6</sup>. Values for Gini coefficients and changes over the last 20 years are shown in table 2.2. Following Blackburn (1989), the magnitudes of those changes can be described in terms of straightforward hypothetical redistributions: the difference in Gini coefficients for two years is one-half the value of a hypothetical lump-sum transfer divided by the initial mean income, this transfer going from each income unit below (above) the median to each unit above (below) the median. As an example, the increase in the Gini coefficient in Australia between the mid-1970s and mid-1980s for the entire population, reported in table 2.2 with 2.1 % could be described as a hypothetical transfer of 4.2 % of the mean income in 1976 from each income unit below the median to each income unit above the median over the following eight years.

9. Over the last two decades taken together, no general trends emerge from table 2.1: income inequality increased in four of the ten countries for which results are available over the whole period from the mid-1970s to the mid-1990s, it decreased in three countries and remained stable in the remaining three. In half of those 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. More of a common trend is apparent for the more recent period, from the mid-1980s to the mid-1990s<sup>7</sup>. During that period, inequalities decreased only slightly in four of the 20 countries for which data are available, remained stable in another five, but increased in the remaining eleven -- in half of those by sizeable or considerable amounts.

### [Table 2.1 Overall trends in income distribution: summary results for the entire population]

10. These results refer to one common indicator of income inequality, the Gini concentration coefficient of income. In order to verify the broad trends described above, table 2.2 shows three additional indicators, the  $P_{90}/P_{10}$  decile ratio, the squared coefficient of variation (SCV), and the mean-log deviation (MLD). It can be seen that during the period from the mid-1980s to the mid-1990s, inequality among the

<sup>&</sup>lt;sup>6</sup> For some countries, results in table 2.1 differ somewhat from a similar table in Oxley *et al.* (1998, p. 36), as the latter refer to country-specific results and concepts

<sup>&</sup>lt;sup>7</sup> The data for Hungary refer to the period 1991 to 1997.

entire population increased unambiguously -- i.e. all four indicators pointed to a rise -- in eight of the 20 countries for which trend data are available. These are shown in bold in the table. In the remaining countries, inequality indicators moved in different directions. This implies that in no country an unambiguous trend towards greater income equality was recorded<sup>8</sup>.

### [Table 2.2 Trends in inequality indicators for the entire population, the working-age and the retirement-age population, mid-1970s to mid-1990s]

11. Inequality paths were not the same for the working-age and for the retirement-age population<sup>9</sup>. The second and third panels of table 2.2 present the four indicators for aggregate income inequality for the two population groups separately. In all countries and in both periods, trends among the elderly were more egalitarian than among the working-age population. That is, inequality as measured by the Gini coefficient increased by less or decreased by more among the elderly than among the working-age population, with the notable exception of Greece and Ireland in the second period<sup>10</sup>. Among the <u>working-age</u> population, income inequality increased during the past decade unambiguously in Austria, Finland, Germany, Italy, the Netherlands, Norway, Sweden, the United Kingdom and the United States. A clear decline occurred only in one country, Greece. On the other hand, inequality among the <u>retirement-age</u> population decreased unambiguously in a greater number of countries: in all countries for which data for the first period are available, except in the United States; and in five countries during the more recent period: Australia, Denmark, Finland, France and Hungary.

12. Changes in aggregate inequality can hide specific movements in the middle and the both extremes of the income distribution. 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; such a change may not be reflected in the aggregate measure. However, Figure 2.2 shows that this was, generally, not the case during the past decade. A "hollowing out" occurred only in Belgium and, very marginally, in France and the United States (where this trend has been much discussed in the literature). In 14 of the 19 countries, the top incomes gained shares, substantially so in Italy, Mexico and Turkey, but also Belgium and Finland recorded sizeable increases<sup>11</sup>. Persons at the bottom of the income ladder lost ground in about half the countries, these losses being larger in Italy, the Netherlands and the United Kingdom.

### [Figure 2.2 Gains and losses by income quintiles, entire population, mid-1980s to mid-1990s]

<sup>&</sup>lt;sup>8</sup> Another way of testing the robustness of results in inequality changes is to examine whether countries' Lorenz curves for two points in time were crossing (implying ambiguity). In ten of the 20 countries considered here, the Lorenz curves for the mid-1990s were found to lie below those for the mid-1980s, implying increased inequality.

<sup>&</sup>lt;sup>9</sup> In the following, the working-age population refers to individuals aged 18-64, and the retirement-age population to individuals aged 65 and over.

<sup>&</sup>lt;sup>10</sup> For the first period hold, this trend holds for all four inequality indicators. For the second period, results are more mitigated: according to the  $P_{90}/P_{10}$  decile ratio, the elderly recorded higher inequality increases than the working-age population in Austria, Ireland and Mexico; according to the SCV measure, this happened in Canada, the Netherlands, Norway and the United States; and according to the MLD measure, the elderly recorded higher increases in Greece, Mexico and Norway.

<sup>&</sup>lt;sup>11</sup> Note that, among these countries, both Belgium and Finland started off with comparably lower levels of income shares of the top quintile (below 35 %).

13. In this general picture of distribution trends, the development of real mean incomes has not been taken into account. One way to consider simultaneously inequality (income distribution) and efficiency (income growth) in the frame of a social welfare function<sup>12</sup> is obtained by comparing "generalised" Lorenz curves (Shorrocks 1980). The generalised Lorenz curve plots cumulative real mean incomes against cumulative population shares, by decile<sup>13</sup>. It thus takes into account the real income development of different points in the distribution. In that sense, a distribution is said to be 'superior' to an alternative distribution if all points lie above the latter curve, i.e. if there was an increase in real personal incomes in all decile groups. In figure 2.3, the generalised Lorenz curves for the latest year are presented as solid lines, those for the mid-1980s as dotted lines, and those for the mid-1970s as dashed lines. In 14 of the 20 countries considered, all points of the generalised distribution in the most recent year lie above those for earlier years, the exceptions being Australia, Canada, Hungary, Italy, Norway and Turkey. The greatest discrepancy can be found in Hungary, and is illustrative. 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 became somewhat slightly flatter (see table 2.2); this flattening was, however, not sufficient to outweigh the sharp loss in total incomes, according to the concept of the generalised Lorenz curve.

14. Social welfare considerations typically focus on the relative status of lower incomes groups. Figure 2.3 shows that, even in a number of those countries in which the standardised Lorenz curve for the most recent date lies above earlier ones at any point, the lowest deciles did not share in overall growth to the same extent as higher decile groups: the corresponding points for the mid-1990s were not significantly higher than the ones for the mid-19980s. This was the case in Germany, Greece, Mexico, the Netherlands, the United Kingdom and the United States. A more significant increase of real mean incomes also for the lower two income deciles (15 percent or more) was recorded in six countries: Austria, Belgium, Denmark, France, Ireland and Japan.

### [Figure 2.3 Generalised Lorenz curves for real disposable incomes of the entire population, mid-1970s to mid-1990s]

#### 2.3 "Winners" and "losers" of income changes

15. Different social groups were affected in different ways by the changes in income distribution outlined above. The paragraphs below discuss changes in relative income levels according to three different socio-demographic groupings, over the period from the mid-1980s to the mid-1990s:

- individuals in different age groups
- individuals in different family types (number of adults, and presence of children)
- individuals in households with different degrees of work attachment (number of earners)<sup>14</sup>

<sup>&</sup>lt;sup>12</sup> The underlying social welfare function considers societal well-being is greater when inequality is lower and when average income is higher (Atkinson 1992).

<sup>&</sup>lt;sup>13</sup> By contrast, the "standardised" Lorenz curve plots cumulative decile shares of *relative* incomes against cumulative population shares. Indicators such as the Gini coefficient are derived from the "standardised" Lorenz curve. For further notes, see Annex 1.

<sup>&</sup>lt;sup>14</sup> Whereas relative income levels for age groups were related to the entire population, those for the family and work-attachment types were related to the working-age population only.

16. The development of age-specific relative incomes -- and, further below in chapter 5, poverty risks -- has to be analysed against the demographic background of a general ageing of societies. In virtually all countries under review, the proportion of children in the total population decreased during the past ten years, on average by some two percentage points. The only countries in which the share of children remained rather stable were Germany, Sweden, the United Kingdom and the United States. Similarly, the share of young people -- those aged 18 to 25 -- fell in all countries, on average by one percentage point, with the notable exception of Hungary and, to a lesser extent, Australia, Austria, Ireland and Mexico. On the other hand, the proportion of persons aged 65 and over increased in all countries except Austria, Hungary and Sweden, on average by over one percentage point. At the same time, there remain considerable differences between countries and country groups as to the levels of these shares: in the Nordic and the Continental European countries, about one person out of five is a child. In the Anglo-Saxon countries, it is one person out of four. In Mexico and Turkey the share of children in the population is much higher, around 40 percent. In these latter two countries, well above half the population is aged under 26 and less than 5 % are 65 or over. The corresponding shares for the other OECD countries are around one third for the young age group, and between 11 and 16% for the elderly age group. As a consequence of ageing, the average household size has also been falling for the last 10 to 20 years, and approaches the value 2 in some of the Nordic and Continental European countries. The average household size is closer to 3 in the Southern European countries and still above 4 in Mexico and Turkey, but falling throughout the OECD area.

17. Figure 2.4 shows changes in relative incomes by age groups that occurred during the past ten years (table 2.3 provides details on levels). In order to control for the impact of changing age structures, the age structure has been kept constant at the end of the period<sup>15</sup>. The levels of relative incomes (table 2.3) in both years illustrate the classical life-cycle pattern, with relative incomes increasing when entering working life and declining when moving into retirement. In all countries except Sweden and the United States, the highest relative incomes in the most recent year are recorded for individuals aged 41 to 50, and their incomes tended to increase between the mid-1980s and mid-1990s. 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 almost 4 percentage points, on average, and incomes of those aged 66 to 74 increased by some 2 percentage points. Relative incomes of those aged 75 and over increased by less, if at all. This suggests that those who approached or entered retirement more recently (elderly workers, early retirees and new pension entrants) benefited most from income changes. Nevertheless, some countries also recorded relative income losses for the elderly generation: Australia, Greece, Ireland, Mexico, the Netherlands, Turkey and the United States.

18. By contrast, younger age groups lost ground during the past ten years: relative incomes of children decreased by 0.6 percentage points, on average, and those of persons aged 18 to 25 by almost five percentage points. The decrease in children's relative incomes was particularly strong in Hungary, Turkey and the United Kingdom, although in a number of countries, their relative incomes increased. At the same time, relative incomes of young persons aged 18 to 25 decreased in all countries except Greece, Hungary and Turkey; declines were particularly strong in Australia, Ireland and the Nordic countries<sup>16</sup>. This development is linked to delayed labour market entry of younger people due to longer education periods and/or unemployment. The interpretation is therefore ambiguous: if the delay leads to human capital acquisition, it could be beneficial. However, if it is nothing but a delay in labour market entry, it could be the prelude to lower lifetime income chances.

<sup>&</sup>lt;sup>15</sup> The same method has been applied for the analysis of family and work-attachment types below.

<sup>&</sup>lt;sup>16</sup> It should be noted that the share of households headed by young persons and therefore the estimates of levels for the Belgium and Sweden are likely to be biased downwards, as the income estimates of those countries are based on a different observation unit (tax unit, rather than households), see Annex 1, para 226.

### [Figure 2.4: Changes in relative disposable income by age groups, entire population, mid-1980s to mid-1990s]

### [Table 2.3: Relative disposable incomes and population shares, by age groups, mid-1980s and mid-1990s]

19. Figure 2.5 and table 2.4 consider the relative income position and shares of individuals according to the family type they are living in, i.e. by number of adults and presence of children. In line with the age structure, the family structure changed during the past ten years. Within the working-age population there are still fewer persons living in households without children than there are in households with children. However, their share increased from about 35 % to almost 40 % in the past ten years. Among households with children, the proportion of persons living in single parent families increased in all countries but Greece. It is particularly high in the Anglo-Saxon countries (Australia, Canada, United Kingdom and United States), Austria and the Nordic countries (Denmark, Finland, Norway and Sweden): between 6 and 10 %. In the Continental European countries their share is around 4-7 %, and in the Southern European countries, Turkey and Mexico below 3  $\%^{17}$ .

20. In general, persons living in households with only one adult have lower relative incomes than those living in households with two or more adults and their income position tended to decline, reflecting the higher number of earners in the latter households. Lone parents have by far the lowest relative incomes, between half to two third the level of the income of the entire working-age population (only in Austria, Finland, Greece and Sweden, they have somewhat higher relative incomes). Their income position declined in half of the 14 countries considered. Also, single persons without children lost ground among the working-age population, in a majority of countries. Relative incomes of persons living in two-adult households with children did not move very much (except in Greece where they increased and in Mexico where they decreased); and those living in two or more adult households without children continued to have the highest relative incomes, and improved their income position in about half the countries.

### [Figure 2.5: Changes in relative disposable income by family types, working-age population, mid-1970s to mid-1980s]

### [Table 2.4: Relative disposable incomes and population shares, by family types, mid-1980s and mid-1990s]

21. Table 2.5 considers the degree of work attachment. Not surprisingly, persons in households with no earners<sup>18</sup> enjoy by far the lowest relative levels of income, about half or less than that of the entire working-age population in Australia, Canada, Italy, Norway and the United States. At the same time, their share in the working-age population increased in all countries except Greece and the United States. On the other hand, the share of those living in households where there are two or more earners increased in more than half of the countries, and, in general, their relative incomes remained stable or increased (a sizeable decline of more than 2 percentage points was found only for Greece which, however, started from the highest level). This phenomenon, the simultaneous increase in "work-rich" and "work-poor" households,

<sup>&</sup>lt;sup>17</sup>. The proportion of children living in single parent families is somewhat higher than the proportion of households, in general 2 to 3 percentage points. Exceptions are Sweden, the United Kingdom and the United States where the proportion of children is some 4 percentage points higher, and Austria, Finland, Greece, Italy, Mexico and Turkey (1 percentage point or less).

<sup>&</sup>lt;sup>18</sup> Results refer to the working-age population which is defined as persons aged 18 to 65. Households with no earners therefore include not only unemployed but also inactive and early retired households. In some countries, e.g. Greece, Hungary, the effective average retirement age is considerably below 65.

and the possible effects of employment polarisation on household income inequalities are discussed below in section 3.2.

### [Table 2.3 Relative disposable income and population shares by degree of work attachment, working-age population, mid-1980s to mid-1990s]

22. To sum up, changes in income distribution in the past ten years generally favoured prime-age and elderly age groups, in particular those around retirement age (aged 51 to 64 and 65 to 74). Also, persons living in multi-adult households somewhat gained income shares, especially in households without children, or when there are two or more earners present. On the other hand, younger age groups lost ground, in particular those aged 18 to 25. Also, the already lower relative income levels of single parents and persons in workless households tended to weaken further in many countries.

### 3. Driving factors of changing income distributions

23. 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 pensions<sup>19</sup>. These sections explore to which extent 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. The period considered is the more recent period, i.e. from a year in the mid-1980s to a year in the mid-1990s.

### 3.1 The effects of shifts in income components on inequality changes

In many national studies (see synthesis table S.1), the distribution of gross earnings has been 24. described as widening, and earnings have been identified as the main contributor to increased overall income inequality. Table 3.1 confirms this picture. It shows the allocation of income components across three income groups: the three bottom deciles ("lower incomes"), the four middle deciles ("middle incomes"), and the three top deciles ("higher incomes"). The income components considered are gross earnings; capital and self-employment income (the two groups together form market income); general government transfers; taxes; and total disposable income<sup>20</sup>. The shares of earnings and other market incomes going to the lower incomes are small (generally less than 12 per cent), while the shares going to the higher incomes are large (between 48 % and 60 % for earnings, and 54 % to 77 % for capital and self-employment income). At the same time, the shares of earnings (and market incomes in general) going to the lower income groups decreased in all countries reviewed, and the shares going to the middle incomes declined as well in most countries. On the other hand, the market income share accruing to the higher incomes increased in all countries but Ireland. Among market incomes, the dispersion of capital and self-employment incomes seemed to increase at a faster path, although country patterns are much more diversified than for earnings.

### [Table 3.1 Allocation of income components across three income groups, working-age population, mid-1980s to mid-1990s]

<sup>&</sup>lt;sup>19</sup> 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.

<sup>&</sup>lt;sup>20</sup> Panel B of the table shows results for those five countries for which estimates on taxes were not available. The results therefore refer to income components net of taxes.

25. This increase in market income inequality was not, or not entirely, translated into higher inequality of disposable incomes for the working-age population, as both transfers and taxes off-set the effects of earnings and capital and self-employment income on the distribution. The bulk of taxes (between half and two thirds) was paid by the higher income groups, while lower income groups contributed less, on average some 8 percent. The share of taxes paid by the higher income groups increased in all countries, while the share paid by lower incomes decreased everywhere except in Denmark and the United States. The allocation of transfers across income groups was more widespread, reflecting the importance of earnings-related transfer systems in many countries. In most countries, between one third and 45 % of all public transfers went to the lower incomes, shares of over 50 % were recorded only in Australia and the United Kingdom, countries in which means-tested elements play a stronger role. Moreover, there was a generalised trend towards higher transfer shares and lower tax shares for the lower income groups in the past ten years<sup>21</sup>. This suggests a continued or, in many countries, increased effectiveness of the tax/transfer systems as a whole in off-setting increased market-income inequality.

26. These effects are illustrated in figure 3.1, which provides more detail on gains and losses by quintiles over time, comparing changes in the distribution of market incomes over the past ten years with changes in the distribution of disposable incomes. Trends in disposable income shares for the working-age population are similar to those of the entire population, shown above in figure 2.2. A slight "hollowing out" of the middle incomes among the working-age could only be found in Canada, France and the United States. In all countries except Australia, Denmark and Ireland the highest income quintile gained shares, and in about half the countries the lowest quintile lost shares in disposable income. Trends for the middle income groups (second to fourth quintile) were not so pronounced, except in Germany.

27. When juxtaposing these trends to those of market incomes it can be seen that in almost all countries the gains of the highest quintile are substantially higher for market income than for disposable income. The main exceptions are Germany and Ireland, where market income shares of the top incomes fell. By contrast, market income shares for the lowest quintile (and most often for both lowest quintiles) declined substantially. The exceptions are 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 less than 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 two countries -- Germany and Norway -- the income losses of the lowest quintile were higher after than before taxes and transfers.

### [Figure 3.1 Gains and losses by quintiles: market income and total disposable income, working-age population, mid-1980s to mid-1990s]

28. Another approach of assessing the impact of the different income components on overall inequality is to decompose a summary measure of inequality (in the following, the Gini coefficient will be used), following a method proposed by Shorrocks  $(1982)^{22}$ . Table 3.2 shows percentage contributions of income components to the *levels* of overall inequality in the starting and the end year, and corresponding changes<sup>23</sup>. The contributions add up to 100 and, in general, a positive sign indicates a positive contribution

<sup>&</sup>lt;sup>21</sup> This is different to earlier findings on the basis of the entire population (OECD 1999), which reported that there was no generalised shift in public transfers towards the low-income groups.

<sup>&</sup>lt;sup>22</sup> The methodology of this method has been described at length in Burniaux et al (1998) and Oxley et al (1999), and is summarised in Annex 1 of this paper.

<sup>&</sup>lt;sup>23</sup> When interpreting the results, it should be noted that, following this decomposition method, any income component that is equally distributed across individuals (i.e. each person receives the same amount of income) makes a zero contribution to overall inequality. This explains why, in some countries, specific

to total inequality. Therefore, the contribution of market incomes to inequality levels made up some 125 to 178 %, the lion share being accounted for by earnings, except in Belgium and Italy where it was capital and self-employment income. The contribution of taxes and transfers together was negative, taxes playing the main equalising role, since they are designed more progressively than transfers. In most countries, both the positive contributions of market incomes and the negative contributions of tax/transfers increased, confirming the picture above. These changes could have occurred because of changing sizes of the respective components and/or shifts within components. This is analysed in the following.

### [Table 3.2 Contributions of income components to overall inequality, working-age population, mid-1980s to mid-1990s]

29. The above method allows an analysis of the contributions to *changes* in inequality by separating the effects of changing shares of each component in total income ("share effect") and the effects of changing dispersion of each component ("component inequality effect")<sup>24</sup>. This is done in table 3.3 which decomposes the changes in the Gini coefficient into the two effects, for each income component. Taking all components together (last panel), it can be seen that the "component inequality" effect was positive in all countries except in Australia and France where it was close to zero. The share effect, however, was negative in seven of the eleven countries considered. In other words, the increased dispersion of the different income components contributed to increasing inequality despite an equalising contribution of changing shares of those components in those countries.

30. The results for the single income components suggest a wide cross-country variation. In more than half of the countries, for instance, declining shares of earnings in total income of the working-age population resulted in a negative contribution to changes in inequality. Higher contributions of an increased dispersion of earnings to inequality were recorded in Australia, Denmark, France, the Netherlands, Sweden and the United States. Also the second component of market income, capital and self-employment income, played a role for inequality increases in some countries (Canada, Finland, Germany, Italy, Sweden, United Kingdom), primarily through increased component dispersion. On the other hand, the increased shares of taxes lead to decreases in overall inequality -- the only exceptions being Finland, the Netherlands and the United Kingdom -- but changes in their dispersion also played a significant equalising role in Australia, Canada, France, Sweden and the United Kingdom. The changes in shares and in dispersion of transfers, on the other hand, had no major impact on inequality trends among the working-age population.

### [Table 3.3 Decomposition of changes in total inequality (Gini coefficient), working-age population, mid-1980s to mid-1990s]

### 3.2 The role of employment concentration and polarisation on changes in inequality

31. The dispersion of gross earnings has been identified as a main contributor to household income inequality. An important question therefore refers to the allocation of employment across and within households and how this allocation has changed during the past 10 years. If, for instance, new jobs are exclusively filled by persons from households in which other members already are employed, then employment growth may not be accompanied by a decrease in workless households. If, at the same time, worklessness is increasingly concentrated in low-income households, then overall inequality and the share of low incomes clearly might increase, despite economic and employment growth. This process -- the simultaneous increase in both workless and fully employed households -- has been described as process of

transfers made a positive contribution to inequality. This might, however, not be interpreted in the sense that this component has no "re-distributive" effect in the conventional sense.

<sup>24</sup> See Annex 1 for a description of methods.

"employment polarisation" by Gregg and Wadsworth (1996). OECD (1998) found this process being at work in 9 of 11 European OECD Member countries<sup>25</sup>.

32. Developments in average incomes according to work attachment (number of earners) have been presented in section 2.3. In order to analyse distributional effects of employment concentration or polarisation, households have been classified slightly differently: "fully employed" households include two or more adult households with two or more earners, but also single adult households who are working; "workless" households include all households where there are no earners; and "mixed" households are two or more adult households with only one earner.

33. Table 3.4 shows that the share of persons in "mixed" households declined in all 15 countries studied during the last ten years. Employment polarisation took place in ten countries. Exceptions are Denmark, Finland and Sweden, 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. No trend for group-specific relative average incomes can be depicted: relative incomes of those in fully employed households increased significantly only in Italy and, to a lesser extent, Germany and Mexico. At the same time, incomes of people living in workless households increased in a majority of countries, especially in Austria, Canada, Denmark, Greece and Sweden. They decreased significantly only in Germany and the Netherlands and somewhat less spectacular in Finland, France and the United States. Relative incomes of those living in multi-adult households with one earner decreased in 9 of 14 countries.

### [Table 3.4 Changes in households' employment concentration: population shares and average incomes, persons in households with a working-age head, mid-1980s to mid-1990s]

34. In order to assess the possible effects of employment concentration for trends in income distribution, aggregate changes in inequality have been decomposed into three parts<sup>26</sup>, 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

35. Figure 3.2 provides an overall picture for these three effects. It shows that 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 those countries, changes in overall inequality were driven by increased (or decreased) income dispersion *within* different households' employment categories. Among the countries in which inequality according to the MLD measure increased, Australia, Mexico and the United Kingdom recorded a very significant positive

<sup>&</sup>lt;sup>25</sup> Belgium, France, Germany, Greece, Italy, Luxembourg, Portugal, Spain and the United Kingdom. Gregg and Wadsworth (1996) found employment polarisation in seven of 11 European countries analysed, particularly so in Belgium, Germany, Ireland and the United Kingdom, but also in Greece, Italy and Spain.

<sup>&</sup>lt;sup>26</sup> The summary index which allows this decomposition is the MLD. For methodology, see Burniaux et al. 1998.

"within group" effect which more than outweighed negative contributions of the other two effects. 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.

### [Figure 3.2 "Within", "Between" and structural effects of employment concentration on total inequality, persons in households with a working-age head, mid-1980s to mid-1990s]

36. More detailed information on the effects of employment concentration on inequality is available from table 3.5. This shows that, for example, the significant positive contribution of the "within group" effect in the three countries mentioned above is predominantly due to increased dispersion among fully employed households in Mexico and the United Kingdom, but due to increased dispersion in workless and mixed households in Australia. The positive contribution of "within inequality" of fully employed households is also higher than that of the other employment groups in Denmark, Finland, Greece, Italy, the Netherlands and Sweden.

### [Table 3.5 Decomposition of changes in inequality, by concentration of employment persons in households with a working-age head, mid-1980s to mid-1990s]

### 4. Redistributive effects of public transfers

37. The results in section 3.1 as well as those reported in earlier analyses (e.g. OECD 1999) underline the impact of taxes and transfers taken together on reducing income inequalities generated on the basis of market income. This is not surprising for taxes, as it is in the very nature of income taxes to play a re-distributive role, although to a different extent in different Member countries. The question is less straightforward for public transfers, as their aim and, hence, their design differs across countries. It might be expected that the redistributive effects of transfers would be weaker in countries where public programmes mostly rely on earnings related schemes or in countries where means-tested provisions of transfers play a more important role. In the latter case, an eventually lower overall share of transfers in the disposable incomes would be off-set by a higher targeting to those in need. One of the findings reported in OECD (1999), Oxley et al. (1999) and Burniaux et al. (1998) referred to a weaker effect of transfers compared to taxes, in equalising the distribution of income in many countries, and to a weakening over time of this effect in some countries.

38. These findings, however, were based on analyses of total public cash transfers across income groups of the entire population, and therefore could not disentangle effects that arose from ageing and reforms in public pension provisions from those affecting transfers other than pensions. The two sections below therefore consider distributional patterns and impacts of two groups of public cash transfers separately:

 effects of non-pension transfers among the working-age population; these include mainly family cash benefits, unemployment benefits, housing benefits, social assistance and other cash payments not contingent on age; - effects of pension<sup>27</sup> transfers among the retirement-age population.

39. The analysis has to be put in the frame of changing shares of total transfers across ages, due to both demographic shifts and reforms of specific transfer schemes. Figure  $4.1^{28}$  shows percentage point changes over the last decade in the share of total public transfers going to three major age groups: children, working-age adults and persons above retirement age. Three groups of countries can be identified:

- The Nordic countries (with the exception of Denmark) and Mexico experienced a redistribution of public transfers away from older age groups to both working-age adults and children. In the United States, children also gained a larger share of transfers, but this was not the case for the working-age adults;
- In Australia, Canada and the United Kingdom, redistribution took place from working-age people to both children and the elderly;
- The continental and Southern European countries (France, Germany, Greece, Italy, the Netherlands and Turkey) showed trends moving in the opposite direction. The share of transfers to the elderly has been increasing in those countries at the expense of children and persons of working age. In Hungary, Ireland and Turkey, children are the sole losers in the redistribution of transfers across ages in the 1990s.

### Figure 4.1

### Percentage point change in the distribution of public transfers across age groups, mid-1980s to mid-1990s

40. Table 4.1 looks at more detailed age groups. It shows that most dramatic changes occurred for the age group 65 to 74, people who generally retired in the past ten to 15 years. Across all seven age groups considered, they were the main winners of distributional shifts of transfers across ages in five countries (France, Germany, Greece, the Netherlands and Turkey) but the main losers in other five countries (the four Nordic countries and Mexico). The share of transfers going to the youth (persons aged 18 to 25) decreased in a majority of countries, in particular in Canada, Denmark, France, Germany, Greece, the Netherlands and the United Kingdom, but it increased significantly in Hungary and Mexico. Overall changes in transfers across age groups depend on changes in the age structure, changes on the labour market, but also changes in per-capita transfers and maturation of pension systems. The following sections therefore consider transfers among the working-age population and the retirement-age population separately.

#### Table 4.1

### Allocation of total public transfers across age groups, entire population, mid-1980s to mid-1990s

### 4.1 Transfers to the working-age population

41. The distribution of non-pension transfers altogether was slightly progressive in all OECD countries studied in the mid-1990s. In most countries, between one third and 40 % of those transfers went

<sup>&</sup>lt;sup>27</sup> Pension transfers refer strictly to old-age pensions, except in Austria, Germany, Italy and Norway where they include disability benefits and survivors pensions and Denmark, Hungary and Sweden where they include survivors pensions. Results are therefore not strictly comparable.

<sup>&</sup>lt;sup>28</sup> When interpreting the results in figure 4.1 and table 4.1 it should be noted that shifts in transfers across age groups result from a combination of changes in the age structure and changes in transfers per capita.

to the lower income groups in the working-age population (three bottom deciles), and between 20 % and 25 % to the higher income groups (three top deciles). The progressive pattern was stronger in Australia, Ireland, the United Kingdom and the United States where 50 to 60 % went to the lower income groups, and only 10 to 20 % to the higher incomes (table not shown).

42. Figure 4.2 shows that there was a trend of non-pension transfers becoming more progressively distributed over the past ten years: this has happened in 12 of the 16 countries considered. In 10 of those countries, the lower incomes were the sole beneficiaries of this trend, and in two Nordic countries -- Finland and especially Sweden -- also middle incomes benefited from this trend in distribution. In the two Southern European countries -- Greece and Italy -- the middle income classes benefited considerably 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.

### Figure 4.2

### Percentage point changes in the distribution of non-pension transfers across three income groups, working-age population, mid-1980s to mid-1990s

43. In the following, the distributional patterns of two of the most important benefits among nonpension transfers are compared: family cash benefits, and unemployment benefits<sup>29</sup>. In order to evaluate the impact of those two transfer schemes on the income distribution, figure 4.3 shows "Pseudo-Lorenz curves" for these transfers in the two year points and for the 14 countries for which these detailed data were available. The chart plots cumulative percentages of the working-age population, ranked by deciles of total disposable income on the x-axis against cumulative shares of family cash benefits (panel A) and unemployment benefits (panel B) on the y-axis. The  $45^{\circ}$ -line represents a situation in which the transfer would be distributed equally across the working-age population<sup>30</sup>.

- 44. As for <u>family cash benefits</u>, 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.

45. By 1995, in all countries considered except Belgium, the proportion of family benefits going to the three bottom deciles was higher than the proportion going to the three top income deciles. Family

<sup>&</sup>lt;sup>29</sup> 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 app. 10 to 20 % of all non-pension transfers in most countries (30 % in Sweden and the United Kingdom).

<sup>&</sup>lt;sup>30</sup> Note that total disposable income, which is not shown in the chart, has a u-shaped Lorenz curve; in none of the considered countries are family cash benefits and unemployment benefits distributed more unequally than total disposable income. The share of family benefits going to lower deciles is higher than the share of total income in all countries.

benefits, therefore, played a role in the redistribution of incomes to lower segments among the working-age population.

46. Panel B of figure 4.3 shows the distributive features of <u>unemployment benefits</u>. 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, the distribution of unemployment benefits follows relatively closely the 45°-line which means that they are almost equally distributed among 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.

47. 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 groups but the maintenance of the income status in case of child rearing and compensation for loss of employment, regardless the income status.

### Figure 4.3

### Pseudo-Lorenz curves: family cash benefits (panel A) and unemployment benefits (panel B), working-age population, mid-1970s to mid-1990s

48. 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. This is shown in the first four columns of table 4.2 which present non-pension transfer shares in the disposable income of three income groups<sup>31</sup>. Those shares rose for the working-age population as a whole in the last ten years, from below 10 % on average, to 11.4 %. The increase for the lower income groups, however, was much stronger: it varied on average across the country sample from around one fourth of their disposable income to around one third,. Those increases were recorded in all

<sup>&</sup>lt;sup>31</sup> For the interpretation of table 4.2 it should be noted that old-age pensions (sometimes, all pension payments) have been excluded. However, the importance of pensions within transfer payments going to the working-age population (e.g. early retirement payments, pensions below age 65, or pensions of other household members) differs widely across countries. Their share in total transfers was around 10 % in Australia, Denmark, Finland, the Netherlands and Sweden; 20 % to 40 % in Belgium, Canada, France, Hungary, Ireland, the United Kingdom and the United States; and it was as high as 50 % to 70 % in Austria, Germany, Greece, Italy and Norway.

countries under review but were strongest in the four Nordic countries (two-digit percentage point increases). This underlines the growing importance of non-pension transfers for lower income groups of the working-age population.

### [Table 4.2 Shares of public transfers in total disposable income, for three income groups Non-pension transfers (working-age population) and pensions (retirement-age population), mid-1980s to mid-1990s)]

### 4.2 Pensions

49. Compared to transfers going to the working-age population, old-age pensions appear to be distributed much less progressively across the retirement-age population. This is not surprising as earnings related components are very important in a majority of the public pension schemes considered here. In more than half the countries, the share of old-age pensions going to the three bottom deciles was below 30 %, whereas the share going to the top deciles was above 30 %. This was the case in 1995 in France, Germany, Greece, Hungary, Ireland, Italy, Norway, Sweden, the United Kingdom and the United States. Figure 4.4 shows the changes that occurred over the past ten years for the three income groups. Apart from Denmark and, to a lesser extent, Sweden, the share of old-age pensions going to the higher income groups among the retirement-age population increased in all countries, particularly so in Austria, France, Hungary, Ireland and Italy. At the same time, the lower income groups lost shares in pension transfers in 13 of the 16 countries, especially in Austria, Ireland and Italy.

#### Figure 4.4

### Percentage point changes in the distribution of old-age pensions across three income groups, retirement-age population, mid-1980s to mid-1990s

50. The "Pseudo-Lorenz curves" in figure 4.5 illustrate some country differences: old-age pensions appear to be slightly progressively distributed only in Australia and Finland. In Austria, Canada, Denmark, Ireland, the Netherlands and the United Kingdom, they are equally distributed across the retirement-age population. In the remaining nine countries, their distribution follows more closely the general distribution of disposable income among the retirement-age population, showing a "u-shaped" pattern. In most countries, no significant changes occurred during the last ten years; in Austria, the distribution of old-age pensions moved from a slightly progressive to an equally distributed pattern; in Hungary, the distribution became somewhat less regressive; and in Ireland, a middle-incomes biased distribution moved to a slightly regressive one.

### Figure 4.5 Pseudo-Lorenz curves: old-age pensions, retirement-age population, mid-1980s to mid-1990s

51. These different distributional patterns partly reflect the importance of public old-age pensions in the total income of pensioners. This is illustrated in the second panel of table 4.2 which shows the shares of old-age pensions in total disposable household incomes, by income groups. The overall share of old-age pensions in incomes of the elderly was lower in countries which displayed a progressive distribution: 39 % in Australia and 28 % in Finland. It was somewhat higher in those countries which displayed a "neutral" distribution: roughly between 41 % (United Kingdom) and 70 % (Denmark). And public old-age pensions constituted by far the biggest source of the elderly incomes in those countries showing a regressive distribution: between 60 and over  $100 \%^{32}$ . To some extent, the United States form an exception in this

The share can rise to over 100 percent in cases where pension incomes are taxed: disposable income is net of taxes.

picture, as a relatively low public pension share in total income (41 %) is combined with a regressive distribution of old-age pensions.

52. In half of the countries, the share of public old-age pensions in the incomes of the lower groups decreased over the past decade. In five of these countries, this happened at the same time as the share of pensions in the incomes of the higher groups increased: Australia, Canada, Hungary, Ireland and Italy. The only country in which the share of public pensions in the incomes of the poorer groups increased significantly was Denmark.

53. To sum up, in most countries the initial prime aim of neither public pensions (for the elderly) nor family and unemployment benefits (for the working-age) is to redistribute resources to poorer income groups. While the analysis of distributive patterns of old-age pensions confirm this for most of the countries, unemployment benefits and family cash benefits do play an important role in redistributing resources to lower income groups among the working-age population. Moreover, this redistributive impact has strengthened over the past ten years.

### 5. Income poverty

54. This section reviews trends in poverty, using cash income as the sole dimension of poverty<sup>33</sup>. This means that other dimensions, such as in-kind benefits, consumption, wealth, deprivation or social exclusion have not been taken in into account for the analysis (for a conceptual discussion of using different criteria and methods in the frame of international poverty comparisons, see Förster 1994a).

### 5.1 Overall trends in income poverty

55. Synthesis table S.2 summarises results from recent national studies, undertaken in 22 Member countries. The focus again is on changes rather than levels, and on specific groups at risk. The results point to a large diversity across Member countries. In many countries, however, poverty risks for the elderly population appeared to have fallen while risks for the younger generation and children in particular, seemed to have increased in the past ten to 20 years.

### [Synthesis Table S.2: Trends in income poverty since 1970: Results from national studies]

56. Results from analysis of the OECD questionnaire suggest a broad stability in relative poverty rates<sup>34</sup>. As those estimates are very sensitive to the particular threshold chosen, table 5.1 presents results for three alternative poverty lines: poverty rates are defined as the number of persons living in households with incomes below 40 %, 50 % and 60 % of the median disposable income in each country, respectively. On average across the 20 countries, relative poverty rates remained almost at the same level over the past ten years, for each of the three thresholds. In almost half of the countries, poverty remained stable or decreased in all three segments: Australia, Belgium, Canada, Denmark, Finland, France, Hungary and the United States. In those countries, except in Finland and France, poverty decreased more for the higher thresholds. In four countries, relative poverty decreased in the lowest segment but increased for the higher thresholds: Greece, Ireland, Mexico and Turkey. In the remaining seven countries, poverty increased in all

<sup>&</sup>lt;sup>33</sup> In other words, income is assumed to be the best proxy for economic well-being, and the relation between income and welfare is assumed to be monotonic.

<sup>&</sup>lt;sup>34</sup> "Relative" means that the poverty thresholds in each country refer to a percentage of the median with regard to each country and each year.

three segments, in particular in Italy and the United Kingdom. For those nine countries for which data for the mid-1970s were available, the trends in the more recent period followed those from the earlier period, except in Australia and the United States where poverty rates (at least at the 50 % and 60 % level) first increased and then decreased; and in Mexico and Sweden where a decrease preceded an increase.

57. Table 5.1 shows an additional indicator for measuring the intensity of poverty: the income gap ratio, which is the average shortfall of the incomes of the poor compared with the poverty line. In general, income gap ratios followed the movements of the poverty rates. This means that in countries in which the proportion of the poor in the population decreased, the average income with regard to the poverty line of the remaining poor increased, 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; and in Austria and the Netherlands, the inverse was the case. In addition to Australia, poverty intensity increased significantly in Italy, Norway and Sweden, while a large reduction occurred in Ireland<sup>35</sup>.

### [Table 5.1 Trends in poverty using a relative threshold, mid-1970s to mid-1990s]

58. The poverty estimates above referred to percentages of the median income in each of the years considered. In order to take into account movements in real incomes, table 5.2 presents trends in poverty on the basis of constant thresholds. In panel A, the threshold of the mid-1970s have been kept constant, and in panel B, the thresholds of the mid-1980s. The values for poverty rates in these years therefore correspond to those in table 5.1. It can be seen that poverty below constant thresholds increased in those three countries in which real median incomes fell over the period: Australia, Hungary and Turkey. 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 thresholds fell, particularly so in Finland and Greece (although this is mostly accounted for by the first period) as well as in Ireland. There are, however, three exceptions, countries in which poverty under a constant threshold slightly increased despite rising median real incomes: the Netherlands, Norway and, in particular, Italy.

59. At the same time, the trends in income gap ratios were not so much affected when using constant poverty thresholds and moved in the same directions as under relative thresholds in all countries except Austria, Denmark and the Netherlands. In these three countries, poverty intensity on the basis of constant thresholds increased during the last ten years, while it decreased on the basis of relative thresholds.

### [Table 5.2 Trends in poverty using a constant threshold, mid-1970s to mid-1990s (panel A), and mid-1980s to mid-1990s (panel B)]

60. Income poverty can be represented as a combination of three dimensions: the incidence of low incomes (i.e. the number of poor persons), the intensity of the low-income situation (i.e. by how far the incomes of the poor fall behind) and the inequality of incomes among the poor population. A composite poverty indicator combining these three dimensions into a single measure is the Sen poverty index<sup>36</sup>. This

<sup>&</sup>lt;sup>35</sup> This is consistent with national research results. The large decrease in the income gap ratio furthermore resulted in a decrease of composite poverty indicators, such as the Sen index, despite the fact that the proportion of poor persons roughly remained the same over the last ten years.

<sup>&</sup>lt;sup>36</sup> The Sen poverty index is defined as  $S = P * \{\Pi + (1-\Pi) * G_q\}$ , where *P*=poverty rate,  $\Pi$ =income-gap ratio and  $G_q$ =Gini coefficient of the poor. For a methodological discussion of the Sen index and an empirical application to a range of traditional OECD countries, see Förster (1994a).

index also allows to decompose changes in overall poverty into the three elements<sup>37</sup>. For instance, reductions in relative poverty during the last ten years might have occurred primarily because the proportion of the poor population decreased, or else due to increases in their relative average income and decreases of inequality among the poor, without any reduction in the number of poor. These different patterns then may serve as an indication of the degree to which policies are targeted to the poorest income segments.

61. Table 5.3 shows percentage contributions of the three elements incidence, intensity and inequality to changes in overall poverty between the mid-1980s and the mid-1990s. The contributions are expressed in absolute percentages; a positive sign therefore indicates a positive contribution to either an increase or a decrease in poverty, depending on the sign in column 1 which shows the percentage change in overall poverty<sup>38</sup>.

62. Across 20 countries, the Sen poverty index increased in seven countries over the last ten years, decreased in another eight, and remained approximately at the same level in the remaining five. There is wide diversity across countries in the importance of the different elements contributing to these changes.

- Seven countries in which overall poverty increased, incidence is the main contributor to this change in five of them. In Germany, Italy, Japan and the United Kingdom, the increased poverty rate contributed between half and three quarters to the overall raise in poverty, increases in intensity and inequality accounting for the remaining part. In the Netherlands, the increase in the number of poor outweighed a decrease in intensity and inequality among the poor. In Norway and Sweden, on the other hand, the three elements contributed roughly to the same extent to the overall increase in poverty;
- The patterns are as diversified for the countries in which overall poverty decreased. In Belgium and Denmark, almost all the decrease is due to falling proportions of the poor. In Canada, this contribution amounted to two third of poverty reduction. In Finland, France and Hungary, on the other hand, reductions in the number of poor only played a minor role; the main contributors were increases in the relative average income of the poor and decreases in inequality among the poor. In Ireland and, especially, in Austria, these two latter elements more than off-set an increase in the number of poor, so that overall poverty has been decreasing.

### [Table 5.3 Decomposition of changes in overall relative poverty, mid-1980s to mid-1990s]

### 5.2 Population groups at risk

63. Evidence from national research suggests that, independently of the trend in the overall rate of income poverty, many OECD countries experienced a change in the structure of poverty. Over the last 20 years a poverty population which was disproportionally elderly changed to one which is more weighted

<sup>&</sup>lt;sup>37</sup> In order to estimate relative contributions of the elements to the overall change in poverty, a linear approximation of the Sen index has been applied. This method has been described in Förster (1994b).

<sup>&</sup>lt;sup>38</sup> For instance, in Germany, a 63 % *increase* in overall poverty was brought by a 76 % contribution of the increasing proportion of poor, while increasing income intensity contributed 14 % and increasing inequality just 9 %. In Belgium, the 27 % *decrease* in overall poverty was almost entirely due to a reduction in the number of poor coupled with a slight reduction in inequality, while the income gap worked against this and slightly increased.

towards younger households with children. In addition, children and single parent families appear to have experienced increased poverty risks.

64. Table 5.4 shows poverty patterns for five age groups: children (persons below 18 years of age), youth (18 to 25), prime age adult (26 to 50), elderly adults (51 to 64) and elderly (65 and over). The first panel shows poverty rates, reflecting the *risk* of the specific groups to be poor. The second panel shows poverty shares, which refer to the relative *importance* of the groups within the total poor population. The third panel presents relative risk indices, which are calculated as poverty rates of specific population groups divided by the overall poverty rate. This index, sometimes referred to as "*representation* index" can also be interpreted as the poverty share of a specific population group divided by its population share. For example, if a population group comprises 40 % of the poor population -- the index thus would be 2. This allows to evaluate whether there is a trend towards an overrepresentation of specific groups in the poor population.

65. Poverty risks developed differently for the different age groups. The only two countries in which poverty rates of all ages increased, were the Netherlands and the United Kingdom. The poverty risk of the elderly population declined in most but not all countries during the last ten years, specifically so in Canada, Denmark, France and Hungary. However, in some countries poverty rates for the elderly increased, notably in Ireland and Mexico, but also in Greece (from an already high level), Turkey and the United Kingdom. At the other side of the age spectrum, child poverty rates increased in more than half of the countries, especially in Germany, Italy, the Netherlands and the United Kingdom. At the same time, a number of countries recorded sizeable decreases of child poverty, especially Australia. Youth generally experienced increases of poverty risks, except in Australia, Greece, Hungary, Ireland and Mexico. For prime-age adults and elderly adults, changes were less significant.

66. How did poverty of specific age groups evolve with regard to the entire population? Was there a trend towards an overrepresentation of, for instance, children in the poor population, i.e. a simultaneous increase in poverty risk and poverty share of this group. The third panel of table 5.4 shows that children are, in general, represented in the poor population as much as in the entire population. Relatively low representation indices (between 0.4 and 0.7) occurred in the four Nordic countries, relatively high ones (over 1.3) in Canada, Hungary, the Netherlands, the United Kingdom and the United States. No generalised trend towards overrepresentation of children in poverty is apparent. The only countries in which the relative risk index increased significantly were Hungary, the Netherlands and, to a lesser extent, the United Kingdom; in all other countries it remained stable. At the same time, there occurred an undeniable increase in representation in the poor population of the youth, and a corresponding decrease of the elderly in almost all countries (the main exceptions being Greece and Ireland and, to some extent, Mexico and the United Kingdom): their relative positions switched during the last ten years.

67. For policy considerations, trends in the relative importance of specific groups in poverty are equally important. The second panel in table 5.4 shows that in all but four countries<sup>39</sup>, about half or more of the poor population is made up by the working-age population, persons between 18 and 64 years of age, and their share in the poor population slightly increased over the last ten years. The share of both elderly and children in the poor population actually decreased over the last ten years in many countries.

### [Table 5.4 Poverty rates, poverty shares and relative risk indices, by age, entire population, mid-1980s to mid-1990s]

Ireland, Mexico, Turkey and the United Kingdom. In these four countries, children made up 40 to 50 % of the poor population.

68. The following paragraphs focus on poverty trends among the population with a working-age head. An important question in this respect refers to trends in poverty among specific family types. For instance, increased poverty risks for single parents combined with their raising share in the population may have increased overall poverty in some countries. Also, the relative poverty risk of people living in families with children as a whole is important for considerations of family policy. Table 5.5 presents poverty rates, poverty shares and relative risk indices for several selected family types with and without children and compares those to the poverty rate of the entire working-age population (column 1).

69. Table 5.5 shows that in about one third of the countries, there is no major difference in poverty rates for persons in working-age households who have children (column 2) and those who have not (column 6). In Hungary, Italy, Mexico, Turkey, the United Kingdom and the United States, persons in families with children have a considerably higher poverty risk as those without. The other extremes are Belgium and the four Nordic countries where childless families have a significantly higher poverty risk. However, in most countries, it is not the presence of children *per se* which increases the poverty risk, but rather specific family types: in particular, living in a single parent household (column 3). For persons living in these households, the poverty risk is especially high in all countries studied. The 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 than for the entire population, and slightly lower than for the working-age population. One explanation for this exception is 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 % (see last column). Indeed, table 5.5 (column 4) shows that poverty rates for single parents who do not work are highest throughout the country sample, and that they are at least twice as high as those for working single parents (except Mexico). In Canada, Germany, Italy, the United Kingdom and the United States, more than 60 % of nonworking single parents are poor. The importance of high employment rates of single parents for lower poverty rates (around or below 20 %) is particularly strong in Sweden, but also in Belgium, Denmark and France. On the other hand, the United States and Canada both have high poverty rates for single parents despite above-average employment rates, and the inverse is true for the Netherlands. This suggests that, apart from employment patterns, child support elements are also important.

70. However, poverty rates for single parents in general, and those not working in particular, decreased in a number of countries significantly during the last ten years. This was the case in Australia, Austria, Canada, Germany and the four Nordic countries. As for persons living in families with children as a whole, poverty rates did not develop that much over the past decade. Notable exceptions are increases in Italy and the United Kingdom, and a decrease in Australia.

71. These results also hold when considering the poverty risks relative to the total working-age population, i.e. including the aspect of increased (or decreased) population shares of family types (third panel in table 5.5). On average, single parents are represented three times as often in the poor population than in the working-age population as a whole. In some countries (Canada, Denmark, Germany, Netherlands, United Kingdom) their poverty rates are four times higher than for the working age population. At the same time, this over-representation decreased in more than half of the countries, notably so in Austria, Germany, Norway and Sweden.

72. The second panel in table 5.5 shows that the composition of the poor working-age population differs considerably across countries. Persons in families with children made up around one third or less of the poor population in the four Nordic countries and Belgium<sup>40</sup>, but a majority in the other countries, and more than 70 % in Hungary, Italy, Mexico, Turkey and the United Kingdom. In those latter countries

<sup>&</sup>lt;sup>40</sup> As noted above, these results are greatly influenced by the use of a different income unit (tax unit) for the analyses in those countries.

(except Turkey) their share in the poor population increased over the last ten years. Single parents account for 20 % to 25 % of the poor population in Australia, Canada, Denmark, the Netherlands, Norway and the United States, and as much as 37 % in the United Kingdom. On the other hand their share is below 5 % in Greece, Italy and Mexico and negligible in Turkey.

73. More generally, it should be stressed that differences in family structures across countries do not appear to explain cross-country differences in overall poverty rates. Oxley *et al.* (2000) calculated poverty rates for families with children for 16 OECD countries<sup>41</sup>, using a common "average" family structure for all countries, with regard to number of adults and number of earners in the family. Comparisons of those rates with the actual poverty rates showed only small differences of less than one percentage point for most countries (1.5 percentage point for the United Kingdom and the United States).

### [Table 5.5 Poverty rates, poverty shares and relative risk indices for selected family types, population with working-age head, mid-1980s to mid-1990s]

74. As has been discussed in section 2.4, the number of earners largely determines the income situation of households and incomes of those living with no earners tended to fall while their share tended to rise in a number of countries. Table 5.6 shows poverty rates, poverty shares and relative risk indices for persons according to the degree of work attachment of their household. As expected, poverty rates for those living with two or more earners are very low (except in Mexico and Turkey) and the rates slightly declined further in the last ten years in a majority of countries. On the other hand, poverty risks for those in workless households are very high, and increased in more than half of the countries, particularly in Germany, Mexico and the Netherlands. At the same time they decreased considerably in Australia, Denmark 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 (exceptions are Greece, Mexico and Turkey). This over-representation tended, however, to decline, as there was a growing share of those households in the total working-age population<sup>42</sup>.

75. In a number of countries (Austria, Canada, Denmark, Finland, Sweden, the United Kingdom and the United States), people in households with one earner also had poverty rates considerably above the average (1.4 to 2.2 times the average of the working-age population), indicating the existence of a working-poor phenomenon. The three poverty indicators did not change substantially for this group, except in Austria, Germany, the United States and, in particular, the United Kingdom where poverty rates, poverty shares as well as the relative risk for persons in one-earner households increased considerably.

76. It should be noted that, except in Germany, the Netherlands and Norway, a majority of poor persons of working-age live in households with at least one person at work. This proportion is particularly high in the Southern countries, and it increased in seven countries. Policies aimed at the working poor are therefore a useful tool in combating overall poverty, complementing policies focused on persons out of work.

### [Table 5.6 Poverty rates, shares and relative risk indices, by work attachment, population with working-age head, mid-1980s to mid-1990s]

<sup>&</sup>lt;sup>41</sup> The same countries as in the present study, except Austria, Hungary and Ireland.

<sup>&</sup>lt;sup>42</sup> The relative risk index in table 5.6 relates work-attachment specific poverty rates to overall rates of the working-age rather than the entire population.

### 5.3 Effectiveness of taxes and transfers in alleviating poverty

77. Results from earlier analysis based on a smaller sample of five countries (Burniaux et al. 1998, Oxley *et al.* 1999) showed that tax/transfer systems reduced substantially aggregate poverty rates in those Member countries. This is confirmed by the results from the present analysis, which are available for 14 Member countries. Whereas poverty rates based on pre-tax and transfer incomes amounted to between 21 and 36 percent in the countries studied, post-tax and transfer rates were considerable lower -- between 5 and 17 percent. Furthermore, this effectiveness tended to strengthen in a majority of countries as Figure 5.1 shows. While pre-tax and transfer poverty rates rose in all countries, on average by more than 4 percentage points, post-tax and transfer poverty rates fell in half the countries and decreased by less in the others, except in Germany, the Netherlands and the United Kingdom.

### [Figure 5.1 Pre- and post tax and transfer poverty rates and percentage changes, entire population, mid-1980s to mid-1990s]

78. The above findings concern the entire population and therefore include the effects of public pensions on low incomes among the retired. These effects differ considerably across countries according to the importance of public versus occupational and private pension arrangements. Indeed, as section 4 has shown, the share of public pensions in the average disposable income of the retired population varies from 30 to 50 % in the Anglo-Saxon countries and Finland to 70 % and above in many European countries. The level of pre-transfer poverty and, hence, estimates of tax/transfer effectiveness may therefore be biased upwards in the latter countries.

79. A more meaningful assessment of tax/transfer effectiveness may be provided when considering poverty among the working-age population on its own. This is shown in figure 5.2 which compares poverty rates before and after taxes and transfers in the mid-1990s and percentage point changes since the mid-1980s for the working-age population. Poverty rates based on market incomes were lower for the working-age population than for the entire population and range between 14 % in Germany and Norway and some 26 % in France and Ireland. At the same time, post-tax and transfer poverty rates for the working-age population were not that much different from those of the entire population and vary from 4 % in Denmark to 17 % in the United States. Although the effectiveness of tax/transfer systems therefore was lower for the working-age population than for the entire population, cross-country differences remain: absolute reduction rates were higher in Australia, Belgium, France, Ireland and the Nordic countries (Norway excepted), and lower in Canada, Germany, Italy and the United States. As for changes over the past ten years, the effectiveness of tax/transfers for the working-age population increased in all countries except Germany and the Netherlands, particularly in Australia, Denmark, Finland and Sweden.

80. The situation, and development, was very different for the retirement-age population as figure 5.3 shows. Declines in poverty rates due to taxes and transfers were naturally higher in countries with large share of public pensions in the income package of the elderly, notably in most of the European countries. As already discussed in section 4.2, post-tax and transfer poverty rates for the elderly declined, by different degrees, in almost all countries (Ireland and the United Kingdom were the exceptions). In a few countries, this was paralleled by declines in pre-tax and transfer poverty rates<sup>43</sup>. The development in the United Kingdom stands out as pre-tax and transfers poverty rates for the elderly decreased during the past ten years while post-tax and transfer rates increased.

### [Figure 5.2 Pre- and post tax and transfer poverty rates and percentage changes, working-age population, mid-1980s to mid-1990s]

In Finland, the large decline in pre-tax and transfer poverty rates mirrors the increase in occupational pension schemes which are counted as market income rather than public transfers.

### [Figure 5.3 Pre- and post tax and transfer poverty rates and percentage changes, retirement-age population, mid-1980s to mid-1990s]

81. The various panels of figure 5.4 analyse developments in the effects of net transfers (i.e. taxes and transfers taken together) on poverty rates for the total population and for specific population groups: children, youth, single parents and persons in 'workless', 'fully employed' and 'mixed' households. The figures plot pre-tax transfer poverty rates on the x-axis and post-tax transfer rates on the y-axis, for the mid-1980s and the mid-1990s. The 45°-line represents a zero-reduction in poverty, and the three dotted lines refer to reduction rates of 25 %, 50 % and 75 %, respectively. The arrows signify the changes over time: if they point to the right, an increase in pre-tax/transfer poverty took place. If they are parallel to the dotted lines, poverty reduction through the tax/transfer system was maintained. An upwards movement signifies decline in poverty reduction, and a downwards movement signifies an increase.

82. Panels A and B refer to the entire population and the working-age population, respectively. Pretax transfer poverty rates generally increased in both cases, and reduction rates remained at the same levels or increased, except for Germany, the Netherlands and the United Kingdom. In the mid-1990s, reduction rates were higher in most of the European countries and Australia than in Canada, Italy and the United States.

83. Panel C of figure 5.4 considers children. Country patterns are very different. In the most recent year, the poverty reduction effects of tax/transfers were highest (around 75 % or more) in the four Nordic countries, Belgium and France. On the other hand, in Germany and the United States they were below 25 %, and in Italy child poverty actually increased after taking account of net transfers. As for significant changes, reduction rates again decreased in Germany, the Netherlands and the United Kingdom, but increased considerably in Australia, but also in Canada, Denmark, Finland and Sweden.

84. There is less of country diversity in the case of the youth population and reduction rates were somewhat lower than for children (panel D). Tax/transfer systems seemed to be more effective in reducing youth poverty in Australia, France, Ireland and Finland than in the other countries, where reduction rates were below 50 %. Effectiveness increased in Australia, Finland and, in particular, Ireland where the reduction rate in the mid-1990s was above 75 %.

85. Panel E considers persons living in single parent families. Tax/transfers are most effective in the four Nordic countries and in Belgium (reduction rates over 70 %), and much less in Germany, Italy and the United States (reduction rates below 20%). Reduction rates increased in a number of countries, including the Nordic countries, Canada and the United States. In the latter two countries, pre-tax/transfer poverty decreased during the last 10 years (arrows point to the left) -- an exceptional feature across most countries and panels. However, in two countries, reduction rates decreased significantly: the Netherlands and the United Kingdom.

86. How did tax/transfer systems affect poverty among persons living in "workless", "fully employed" and "mixed- employment" households<sup>44</sup>? (panels F through H). Pre-tax and transfer poverty rates were very high for persons in households without work, although they decreased in some countries between the mid-1980s and mid-1990s. Net transfers reduced poverty rates among those persons by 50 % or more in most countries. Nonetheless, reduction rates in the mid-1990s were lower in Germany, Canada and, in particular, the United States. Poverty rates among persons in households with a "mixed" employment pattern were largely reduced in Belgium, Denmark, Finland, France and Sweden, but there was almost no reduction due to tax/transfers in Germany and Italy. Pre-tax and transfer poverty rates for

The categories used are the same as those in section 3.2, and are defined above.

persons in "fully employed households" -- rates of generally below 10 % but increasing in a number of countries since the 1980s-- were reduced by 75 % in Finland, and by over 50 % in Denmark, France, Sweden and the United Kingdom.

87. To sum up, at the latest date available, tax/transfer systems reduced poverty rates among specific groups of the working-age population at risk -- children, single parents, and persons living in workless households -- by more than half in a majority of countries: Australia, Belgium, France, Ireland<sup>45</sup> the Netherlands and the four Nordic countries. Lower reduction rates were recorded in Canada, Germany, Italy, the United Kingdom and the United States. Over the last 10 years, Australia and the United Kingdom switched places among those two groups. Reduction rates were not as high for the youth population, except in Australia, France and Ireland. Considering the development over the last ten years for all three population groups at risk together, the effectiveness of tax/transfers has increased in Australia, Canada, Denmark and Sweden, but decreased in Germany, the Netherlands and the United Kingdom.

### [Figure 5.4 Poverty rates before and after accounting for taxes and transfers, specific population groups, mid-1980s and mid-1990s]

For Ireland, only results for age groups (children, youth) were available.

### PART 2: COUNTRY-SPECIFIC TRENDS

88. This section considers developments specific to countries included in the analysis, i.e. to what extent patterns deviated from the general trends in income distribution outlined above. The synthetic summaries are based on the analysis of the questionnaire results.

### Australia

89. In Australia, the distribution of disposable household incomes remained broadly stable between the two decades from the mid-1970s to the mid-1990s: an increase in inequality in the earlier decade was almost outweighed by a slight decrease during the more recent decade. For the retirement-age population, however, income inequality tended to decrease in both sub-periods. Real incomes declined, in the earlier decade more than in the more recent one. In the first sub-period, this decline concerned all income groups almost equally, in the second sub-period it concerned mainly higher income groups. Between 1984 and 1994, relative incomes of the youth and -- in contrast to the OECD trend -- also those of the elderly declined, while those of age 26 to 64 increased.

90. In the past decade, the share of market incomes going to the lower incomes among the workingage population decreased while the share going to the top quintile considerably increased. At the same time, the share of taxes paid by the lowest 30 % fell to one of the lowest values in the countries surveyed (below 4 %) while the share of public transfers received increased to the highest value recorded across the OECD countries studied (over 60 %). This resulted in disposable income shares that increased for lower and middle incomes but decreased for higher incomes among the working-age population. A decomposition analysis of income components for the working-age population suggests that the contribution of market incomes to overall inequality rose in Australia; among those, the contribution of gross earnings increased by more than in any other OECD country studied. At the same time, the offsetting equalising contribution of transfers and taxes increased, too. Again, the extent in the rise of the contribution of taxes to equalising disposable incomes was not paralleled by any other country. This effect was due to both an increased tax share and, even more, changed distributional pattern of taxes.

91. Employment polarisation happened in Australia during the past ten years but, overall, did not contribute to the change in income inequality: a positive contribution of "within" inequality effects was outweighed by an equalising effect of "between-group" inequality, while the contribution of changing shares of fully employed, workless and multi-adult households with only one worker was marginal.

92. Over the past ten years, total public transfers were redistributed from the working-age population to both children and the elderly. Non-pension transfers were distributed more progressively than in other OECD countries; at the same time the transfer share in total disposable income of the working-age population was around OECD average, and lower than in most European countries. The share in incomes of poorer groups was somewhat higher. Australia is the only country in which both family *and* unemployment benefits played an important redistributive role; in the case of family cash benefits, this role strengthened over the past ten years. Also, public pensions were distributed more progressively than in other countries (Finland and Norway excepted), although the lower income groups lost shares in pension transfers over the past ten years.

93. Relative and absolute poverty declined in Australia between the mid-1980s and mid-1990s. This concerned in particular children, who were a high group at risk in the 1980s and, more generally, families with children. Also, poverty indices for persons living in households with no earners decreased, by more than in other OECD countries (where this occurred). At the same time, poverty among working households remained constant. The effectiveness of taxes and transfers on poverty among the working-age increased during the last ten years, as the pre-tax and transfer poverty rate increased by over 5 percentage points while post-tax and transfer poverty decreased by 3 percentage points. Poverty reduction rates due to tax/transfers increased particularly for children (from 25 % to 65 %) and for single parents (from 30 % to 65 %).

### Austria

94. In Austria, income inequality slightly increased between the mid-1980s and mid-1990s, somewhat more among the working-age than the retirement-age population<sup>46</sup>. Real incomes improved across the entire distribution. In terms of relative income shares, almost no movements occurred across the distribution. However, a redistribution across age groups took place: relative incomes of the elderly, in particular younger senior citizens, increased by more than in other OECD countries, namely by 9 % for those aged 65 to 74. Younger age groups, especially those aged 26 to 40, lost ground.

95. Like a majority of OECD countries, employment polarisation took place in Austria, as the shares of fully employed and workless households increased at the expense of multi-adult households with only one worker. Relative incomes of those in workless households increased while relative incomes of those living in households with earners decreased. For changes in overall inequality among the working-age population<sup>47</sup>, changes in income dispersion *within* each of the three household types and, in particular, within fully employed households were as important as structural changes. Changes in dispersion *between* the three types did contribute less.

96. During the past decade, the share of non-pension transfers going to lower income groups increased at the expense of the share going to higher income groups among the working-age population. The inverse, i.e. lower income groups losing shares at the expense of higher incomes, was the case for pension transfers among the retirement-age population. Among non-pension transfers, family allowances were distributed proportionally across the distribution in both years, while unemployment benefits showed a more progressive pattern, in particular in the mid-1990s.

97. Relative income poverty slightly increased over the period, while it decreased when using a constant poverty threshold. The overall intensity of relative income poverty decreased despite an increase in the number of poor persons as relative income movements among the poor population played a significant off-setting role: both the income poverty gap ratio and inequality among the poor decreased significantly. Poverty rates and poverty shares of the elderly, of persons living in single parent families and of persons living in workless households decreased considerably. However, these groups continued to have significantly above-average poverty risks (at least twice the average).

<sup>&</sup>lt;sup>46</sup> Results of Austria are less comparable than for the other countries, as a large part of self-employment and capital income is not covered by the underlying surveys, for consistency reasons. However, overall inequality measures including those income sources are very similar to the questionnaire results, especially with regard to trends.

<sup>&</sup>lt;sup>47</sup> The specific indicator used for this analysis, MLD, pointed to an overall decrease in inequality.

## Belgium

98. In Belgium, overall inequality of disposable income increased during the last ten years. At the same time, income poverty -- measured both relatively and "absolutely" -- declined substantially. Real incomes increased across the whole distribution: Belgium is one of the few OECD countries -- together with Denmark, France and Ireland -- in which those increases were higher for the bottom deciles (between 12 and 20 %) than for the population as a whole (10 %). In relative terms, a "hollowing out" of the middle class occurred: both the bottom and the top quintile gained income shares at the expense of the three middle quintiles. In 1995, relative incomes were highest for adults aged 41 to 65, and lowest for older senior citizens (those aged 75 and over). The discrepancy in relative incomes between working-age families with children and those without children was greater than in other OECD countries, childless families having considerably higher relative incomes<sup>48</sup>.

99. With just over 7 %, the share of market incomes going to the three bottom deciles among the working-age population is one of the lowest across all OECD countries studied, while almost 60 % goes to the three top deciles. The share of public transfers going to the three bottom deciles is just over one third and below OECD average. At the same time, the share of taxes paid by the lower incomes is also below average and the share paid by higher incomes above average. Consequently, direct taxes played a higher equalising effect on the income distribution among the working-age population than in other countries. Among market incomes, the contribution of capital and self-employment income to overall inequality was much higher than in other OECD countries and the contribution of earnings was lower -- Finland, Italy and the United Kingdom excepted. The share of public transfers going to children and the youth population is below OECD average but in the range of neighbouring countries (France, Germany, Netherlands), and the share going to elderly is above average (especially for the age group 51 to 65). While family allowances are distributed roughly proportionally across the distribution among the working-age population, unemployment benefits show a significant progressive pattern, with almost 60 % going to the bottom three deciles (only Australia shows a more progressive pattern). On the other hand, pensions among the retirement-age population are distributed regressively and follow the overall pattern of disposable income. Amongst those aged 65 and over, public pensions constitute 90 % of the disposable income of higher income groups, and between 97 and 99 % for other income groups.

100. The reduction in the intensity of poverty during the last ten years was almost entirely due to a fall of the number of poor persons, while the income gap and inequality among the poor remained unchanged. The poverty risk is higher for both young and elderly people, and below average for all other age groups, including children. Among the working-age population, those with children make up one third of the poor population, a value as low as in the four Scandinavian countries (OECD average: 63 %). The reduction of poverty among the working-age population through the workings of the tax/transfer systems was one of the highest across OECD countries (together with France). This reduction was particularly strong for children, single parents and persons in workless households (60 % and above) and weaker for young persons (30 %).

### Canada

101. In *Canada*, the distribution of disposable incomes remained broadly stable over the last two decades, and some summary measures point to a slight decrease in inequality. This holds for both the working-age and the elderly population. During the first period, mid-1970s to mid-1980s, there was some "hollowing out" of the middle incomes, as both the bottom and the top incomes gained income shares at the expense of the middle incomes. This trend did not continue into the second period, from the mid-1980s

Those results should be interpreted with care, as the Belgian estimates are based on a different income unit definition (tax units rather than sociological households), see Annex 1.

to the mid-1990s. Real incomes, on average, did not improve in Canada over the last 10 years; they fell for the upper incomes while the real value was maintained for those at the bottom. There was redistribution across age groups in the last ten years: relative incomes of the elderly, in particular older senior citizens, increased more than in all other OECD countries (Austria excepted), namely by 3 % for those aged 55 to 64, by 8 % for those aged 65 to 74 and by 10 % for those aged 75 and over. All other age groups lost ground.

102. As in most other countries, the share of market income, in particular capital and self-employment income, going to the bottom deciles among those of working-age decreased, and related to that, tax shares fell, too. At the same time, Canada is one of the few countries in which the transfer share of bottom incomes did not increase during the past ten years. Nevertheless, a decomposition of levels and trends in inequality among the working-age population shows that both taxes and transfers contributed to equalise the distribution of disposable incomes over time. As in a majority of countries, a process of "employment polarisation" took place in Canada in the last ten years. However, both fully employed and workless households increased their relative incomes while those of multi-adult households with only one worker fell. The contributions of these three groups to the slight decrease in overall inequality were different: while inequality within and between those groups contributed largely to the decrease, structural changes drove overall inequality up but did not outweigh the other decreasing effects.

103. Over the past ten years, public transfers taken together, were redistributed from the working-age population to both children and the elderly. While the distribution of non-pension transfers became more progressive in most OECD countries, this was not the case in Canada: public resources shifted from the middle deciles to the top, leaving the proportion of non-pension transfers for the lower income groups unchanged. Among those transfers, family cash benefits showed a clearly and increasing progressive pattern, while unemployment benefits were more targeted to middle incomes. The overall share of non-pension transfers in disposable income of the working-age population is, however, lower than in other OECD countries (about half of the average), and so is the share in the bottom incomes. As for the share of public pensions within incomes of the elderly population, this share decreased for the lower incomes but increased for higher incomes.

104. Overall relative poverty decreased in Canada in the last ten years. The overall decrease was due to both declines in the number of poor and reductions in poverty gaps and inequality among the poor. However, poverty rates decreased mostly among the elderly. Their share within the entire population in poverty fell to below 3 %, the lowest value recorded among the OECD countries studied. At the same time, child poverty did not increase in Canada, although children still constitute one third of the poor population. The effectiveness of taxes and transfers on poverty rate increased by 2 percentage points while post-tax and transfer poverty decreased slightly. These effects were stronger (and have increased) for children and youth than for single parents.

### Denmark

105. In Denmark, income inequality decreased among the retirement-age population and remained broadly at the same (low) level for the working-age population between 1983 and 1994. Taking the whole population together, the lowest quintile gained income shares while the two highest quintiles somewhat lost shares. Real incomes increased across the whole distribution: Denmark is one of the four OECD countries (together with Belgium, France and Ireland) in which those increases were higher for the three bottom deciles (between 16 and 24 %) than for higher income groups, i.e. those above the median (around 12 %). A redistribution across ages happened during the decade: relative disposable incomes of persons

below 41 years of age (including children) declined while older persons gained ground, in particular the age group 51 to 64.

106. The equalising effect of taxes and transfers on income distribution among the working-age population strengthened. The share of market incomes (gross earnings and capital and self-employment income) going to the two lower quintiles fell by over 1 percentage point each while the share of the top quintile increased by over two percentage points; at the same time the share of disposable income going to the lowest quintiles slightly increased while the share at the top decreased. According to a decomposition analysis, the contribution of both public transfers and taxes to decreasing overall inequality among those of working age increased, but the lower share of capital and self-employment income also played a role.

107. The increase in the share of workless households drove inequality among the working-age population up but this was more than outweighed by equalising movements in dispersion between and within workless, fully employed and multi-adult households with only one worker.

108. Over the decade, total public transfers were redistributed from younger and elderly age groups to those aged 41 to 50 and, to a lesser extent, older senior citizens (aged 75 and over). Non-pension transfers among the working-age population became more progressively distributed as the share accruing to the three bottom deciles increased by 5 percentage points at the expense of the top deciles between the mid-1980s and mid-1990s. Among those transfers, family benefits were in both years progressively distributed. Compared to 1983, unemployment benefits showed a more progressive pattern in 1994. As was the case in the other three Nordic countries -- but not the other OECD countries -- the share of non-pension transfers in disposable income of the working-age population increased significantly, and the share in the incomes of poorer groups augmented even by more. A specific feature occurs for public pension transfers: Denmark is the only country where their share going to the lower income groups among the elderly increased and the share going to richer groups decreased.

109. Intensity of poverty decreased in Denmark, mainly due to a reduction in the number of poor persons. Poverty rates decreased for all age groups except the young (those aged 18 to 25): while their poverty risk was not very different from that of the entire population in the mid-1980s, it was more than twice that risk in the mid-1990s. At the same time, old-age poverty decreased significantly. In Denmark, persons in households with one worker have a higher relative poverty risk than in other countries and, furthermore, this risk increased over time. The effectiveness of tax/transfers in reducing poverty among the working-aged increased over time. Reduction rates were particularly strong (over 75 %) and have strengthened for children and persons in workless and multi-adult households with one earner; they were less strong for the youth.

# Finland

110. In Finland, the distribution of disposable incomes remained broadly stable over the last two decades: a decrease in overall inequality between the mid-1970s and mid-1980s was outweighed by an increase over the next decade. However, inequality among the retirement-age population decreased in both sub-periods, according to various summary measures. During the first period there was some "hollowing out" of the middle incomes, as both the bottom and the top incomes gained income shares at the expense of the middle incomes. This trend did not continue into the second period, as only the top quintile gained shares at the expense of all other quintiles. Over the past ten years, real incomes improved across the whole distribution relatively equally, between 8 and 11 %. Relative incomes did not change dramatically across age groups, except for the youth (18-25) where they decreased by 9 percentage points.

111. The share of workless households in Finland increased and their relative incomes fell; the inverse happened for fully employed households and multi-adult households with only one worker. Changes in inequality between and within those three household groups as well as their changing shares all contributed to the increase in income inequality between 1986 and 1995 among those of working-age.

112. The share of market incomes, in particular gross earnings, going to the bottom deciles among the working-age population decreased significantly during the last decade and, accordingly, the share going to the top deciles increased. Both movements were more pronounced than in any other OECD country reviewed, and were linked to the recession of the early 1990s. At the same time, changes in disposable income shares were not very different from the cross-country average which indicates a growing effectiveness of both taxes and transfers.

113. Finland is one of the few countries in which the share of public transfers going to the elderly decreased considerably while the share going to those aged less than 50 increased<sup>49</sup>. During the past decade, non-pension transfers among the working-age population were redistributed towards lower and middle incomes in Finland. While unemployment benefits were progressively distributed, family benefits were targeted more towards the middle incomes; these patterns hardly changed during the decade. As was the case in the other three Nordic countries -- but not the other OECD countries -- the share of non-pension transfers in disposable income of the working-age population increased significantly, and the share in the incomes of poorer groups augmented even by more. The distributive pattern of public pension became somewhat more progressive; at the same time, their importance in disposable income of the elderly decreased, for lower income groups more than for higher income groups.

114. Intensity of income poverty decreased significantly in Finland between the mid-1970s and mid-1980s, and continued to decrease at a slower path in the following decade. The main factors of this decrease were increases in the relative average income of the poor and decreases in inequality among the poor rather than reductions in the number of poor. Poverty rates fell for the elderly and also for single parents, while they increased for young people (18 to 25). Poverty reduction through tax/transfers among those of working-age was stronger than in other countries, in particular for children and single parents, but also for young persons and persons living in fully employed households.

### France

115. In France, the distribution of disposable incomes remained broadly stable over the period from the mid-1980s to the mid-1990s. Indicators sensible to changes in top incomes suggest an increase and those sensible to changes in lower incomes suggest a decrease in inequality. Real incomes increased across the whole distribution: France is one of the four OECD countries -- Belgium, Denmark and Ireland being the other three -- in which those increases were higher for the lower incomes (22 % and 14 % for the first and second decile, respectively) than for the population as a whole (between 10 % and 12 % for the other deciles). In relative terms, income shares remained fairly stable: both the bottom and the top quintile marginally gained income shares at the expense of the three middle quintiles. During the period, relative incomes of elderly age groups increased, in particular those near retirement age (51 to 74) while those of younger age groups (18 to 40) decreased. Relative incomes at the extremes of the age distribution (children, and senior citizens) remained unchanged. Among family types, single parents experienced a considerable loss in their relative incomes (over 7 %) while all other family types could maintain their relative incomes; this loss was one of the highest across all OECD countries. As in a majority of countries, a process of "employment polarisation" took place in France in the last ten years. In that frame, relative

This is mainly due to an institutional shift to occupational pensions; in the household income data, these are included in capital and self-employment income and private transfers.

incomes of both fully employed and workless households somewhat increased while multi-adult households with only one worker slightly lost ground.

116. The share of market incomes (gross earnings and self-employment and capital income) going to the richest quintile among the working-age population increased while it deceased for all other quintiles. This is also true for shares of disposable income, but to a much lesser extent. A decomposition analysis of income components suggests that the contribution of market incomes to overall inequality among the working-age population increased at the same time as taxes and transfers had a stronger equalising effect. The main driving factors among market incomes were an increased dispersion of gross earnings and an increased share of capital and self-employment income<sup>50</sup>. The off-setting factors stem from changed distributional patterns of both taxes and transfers: those contributed to an increased equalising effect on disposable incomes. At the same time, changes in the shares of both taxes and transfers contributed only little to this increased equalising effect.

117. Linked to ageing of the population, the share of total public transfers going to elderly age groups, in particular those aged 65 to 74, increased from 21 % in 1984 to 30 % in 1994. Those aged 55 to 64 lost 7 % of transfer shares. The trends in the distribution of public transfers across income groups were very different for the working-age and for the retirement-age population: the share of non-pension transfers going to the lower incomes among those of working-age increased, and that going to middle and higher incomes decreased. On the other hand, some 5 % of pension shares shifted from lower and middle-income groups to higher income groups (three top deciles) among the retired<sup>51</sup>, reflecting the importance of earnings-related schemes. Among transfers for the working-age population, family cash benefits<sup>52</sup> show a highly and furthermore increasing progressive pattern, while unemployment benefits were targeted more to middle incomes. For the working-age population as a whole, the proportion of disposable income groups). For the retirement-age population as a whole, the share of public pension transfers in disposable income increased more than for other OECD countries (Denmark excepted).

118. Overall, the intensity of relative income poverty decreased in France. For that, reductions in the number of poor only played a minor role, the main contributors being increases in the relative average income of the poor and decreases in inequality among the poor<sup>53</sup>. Poverty mainly decreased for the elderly, while it increased for single parents (both working and not working). Poverty reduction among the working-age population due to tax/transfers – already among the highest across OECD countries together with Belgium – strengthened slightly further in the last ten years, except for single parents.

<sup>&</sup>lt;sup>50</sup> It should be noted that, for reasons of consistency over time, only roughly two thirds of all capital and selfemployment income have been included in the data; this fact, together with a likely underreporting of those types of income, requires that results should be interpreted with care.

<sup>&</sup>lt;sup>51</sup> This development stems from several facts: an increase in coverage of 'complete' pensions for the elderly population; a higher share of pensioner households receiving two pensions; a re-valorisation of pension benefits during the 1990s; and a higher share of younger pensioners with higher pension rights.

<sup>&</sup>lt;sup>52</sup> These include allocations familiales de base, complément familial, allocation de rentrée scolaire, allocations pour jeune enfant, aide à la garde d'enfant, allocation parental d'éducation, allocation de parent isolé and allocation de soutien familial.

<sup>&</sup>lt;sup>53</sup> These results are based on poverty thresholds of 50 % of the median income and are therefore sensitive to very low incomes.

## Germany

119. In Germany, overall income inequality seems to have increased between the mid-1980s and mid-1990s<sup>54</sup>. All summary indicators point to a modest increase in inequality among the working-age population, but a modest decrease among the retirement-age population. Relative income shares of the two bottom quintiles fell by less than one percentage point while those of the upper quintiles increased. At the same time, real incomes increased throughout the whole distribution, although to a much larger extent for top and middle incomes<sup>55</sup>. Relative incomes of younger age groups (children, youth and younger adults) fell (by around 3 %) while adults aged 41 to 50 and younger senior citizens (65 to 75) gained. Germany is the only country across the sample in which relative incomes of single adult households (with and without children) increased, while multi-adult households lost ground.

120. The share of market income going to lower income groups among the working-age population declined, and the share of total disposable income declined even by more. This is mainly due to the fact that the proportion of public transfers going to lower incomes fell during the past ten years. At the same time, the share of both market income and public transfers going to higher income groups increased while their tax share decreased. Germany is the only country which displays this trend over the most recent decade. Among market incomes, gross earnings made a much larger contribution to overall inequality than capital and self-employment income although the importance of the latter increased over the years.

121. The process of employment polarisation over the last decade contributed to the increase in overall inequality among the working-age population. A specific feature of Germany (together with the United States) is that the "between-group" effect was more important than "within-group" and structural effects; i.e. the effect of increasing income dispersion between workless, fully employed and multi-adult households with only one worker was more important than changes in inequality within these groups or changes in their population shares. All three effects were however positive, in the sense that they were contributing to the increase in overall inequality.

122. Over the past ten years, public transfers were redistributed from the working-age to the retirement-age population: in 1994, 55 % of all transfers were going to persons aged 65 and over (the highest value across the sample), as compared to 46 % in 1984. Related to that, the importance of non-pension transfers in the disposable income of the working-age population decreased. At the same time, these transfers became more progressively distributed over time<sup>56</sup>. On the other hand, the importance of pensions in disposable incomes of both lower and higher -- but not middle -- incomes among the elderly increased.

123. Relative income poverty increased in Germany, and "absolute" poverty using a constant threshold decreased only slightly. This increase concerned mainly the younger generations: in 1984, the relative poverty risk for children and youth was below that of the elderly while in 1994 the inverse was the case. Also, poverty rates for single parents increased considerably, especially for those who are working. Over the decade, the effectiveness of tax/transfers on poverty among the working-age population seems to

<sup>&</sup>lt;sup>54</sup> For reason of comparability, the analysis is restricted to the old Länder. Estimates for inequality and poverty trends in the new Länder are provided in the synthesis tables of national research in tables S.1 and S.2.

<sup>&</sup>lt;sup>55</sup> This change over the decade hides two quite different movements in the sub-periods: between 1984 and 1989, real incomes increased equally for all deciles, between 13 and 15 %. Between 1989 and 1994, real incomes increased only for those above the median (between 1 and 5 %) but decreased for those below the median (between 1 and 8 %).

<sup>&</sup>lt;sup>56</sup> This contrasts to the trend of *all* public transfers going to the working-age population which became less progressively distributed; these latter transfers include notably early retirement pensions.

have weakened, as poverty rates after net transfers increased by 2 percentage points more than before net transfers. Across the country sample, this has happened only in Germany and the Netherlands. This decreased effectiveness has been found especially for two population groups: children and persons in workless households.

## Greece

124. In Greece, income inequality decreased significantly between the mid-1970s and the late 1980s and remained stable since then<sup>57</sup>. Over the more recent period, between 1988 and 1994, real incomes increased for the two lower deciles and remained practically unchanged for the other deciles. In terms of changes in relative incomes across age groups and family types during that latter period, Greece displayed a specific picture, as incomes were redistributed from older age groups (51 and over) to younger ones, especially children. In particular, the relative incomes of older senior citizens (75 and over) declined substantially<sup>58</sup>. Among those of working-age, persons witch children increased their relative incomes -- in particular single parents -- while those without children lost ground. Also, persons living in workless households gained relatively and their average income relative to the working-age population was higher than in other OECD countries. In that context, changes in dispersion *within* those households but also within multi-adult households with only one worker contributed to a decrease in inequality among the working-age population while changes within fully employed households contributed to an increase. The effects of changes *between* those three employment types taken together were neutral and changes in their shares contributed to a slight overall decrease in inequality among those of working-age.

125. Over the period from the late 1980s to the mid-1990s, non-pension transfers going to the working-age population became increasingly targeted to middle incomes while lower and higher income groups lost shares. Public pensions among the retirement-age population were distributed regressively and follow the overall pattern of disposable income. The regressive pattern was more pronounced in the mid-1970s than in later years.

126. Overall income poverty decreased between the mid-1970s and late 1980s, and remained broadly stable until the mid-1990s. Diverging from the trend in most other OECD countries, poverty rates among the elderly increased during the latter period<sup>59</sup> and those of young persons (18 to 25) decreased. Poverty rates of single parents, especially those who were not working, increased but their share in the poor population remained much lower than in other OECD countries (below 5 %)<sup>60</sup>. Persons in households with one worker had a higher poverty risk than the entire working-age population and this risk increased over time, indicating the existence of a working-poor phenomenon. More than 80 % of the poor working-age population were made up by persons in households with at least one worker.

### Hungary

127. In Hungary, income inequality remained broadly at the same level between 1991 and 1997, although some indicators point to a decrease among the retirement-age population. Due to the recession at the beginning of the decade, real incomes decreased considerably across the whole distribution, these

<sup>&</sup>lt;sup>57</sup> Some indicators point to a slight decrease but only among the working-age population.

<sup>&</sup>lt;sup>58</sup> Using alternative equivalence scale assumptions, those changes would show much less dramatic, however.

<sup>&</sup>lt;sup>59</sup> This increase was entirely due to a rising poverty among senior citizens, aged over 75.

<sup>&</sup>lt;sup>60</sup> Greece is the only country across the sample in which the population share of single parents decreased over the last decade.

losses being somewhat greater for middle and higher income deciles. Relative incomes decreased for children and those aged 41 to 50 and increased for all other age groups, in particular those aged 51 to 75. Hungary, together with Turkey, is the only country across the sample where relative incomes of the youth have increased. Among the working-age population, those living in households without workers and with only one worker improved their relative status and their relative income level is higher than in other OECD countries.

128. Over the period, total public transfers were redistributed from children and prime-age adults (26-40) to the youth and older age groups, in particular older senior citizens (75 and over). Both non-pension transfers and public pensions became a more important part in the disposable income of the working-age and the retirement-age population, respectively. Their distributive pattern, however, went in different directions, as the distribution of non-pension transfers among those of working-age became more progressive, while that of pensions among the elderly became more regressive. Among non-pension transfers, family cash benefits were targeted to middle incomes in 1991 but targeted to lower incomes in 1997. Unemployment benefits were more targeted to lower incomes and this feature strengthened over the years.

129. Relative income poverty slightly decreased over the period but "absolute" poverty -- linked to the loss in real incomes -- increased substantially, poverty rates almost tripling. At the same time, the income gap of the poor declined for both estimates, i.e. the average income of the poor relative to the poverty thresholds improved. A decomposition analysis of the decrease in intensity of overall relative poverty indicates that this decrease was due in equal parts to a reduction in the number of poor, an increase in their average income and a decrease in inequality among the poor.

130. Relative poverty rates increased slightly for children and prime age adults but decreased significantly for elderly -- the greatest drop recorded across the country sample. As a consequence, the share of the elderly in the poor population fell from 30 to 12 %, and the share of children rose from 23 to 26 %. More than one third of the poor is at prime working age (26 to 50 years old), one of the highest percentages across the OECD area.

### Ireland

131. In Ireland, the distribution of disposable incomes remained broadly stable between 1987 and 1994, with some summary measures indicating a slight decrease in inequality, especially among the retirement-age population. Real incomes increased across the whole distribution: Ireland is one of the four OECD countries (together with Belgium, France and Denmark) where those increases were higher for the two bottom deciles (between 31 and 43 %) than for the deciles above the median (around 25 %).

132. The share of market income going to lower income groups among the working-age population was lower than in other OECD countries (6 %) and the share going to higher incomes was larger (61 %); those shares did not change much during the period. On the other hand, the share of transfers going to lower incomes increased and the share of taxes fell, so that lower income groups experienced gains in disposable income shares and higher income groups recorded losses.

133. Relative income poverty remained at a similar level over the period while "absolute" poverty based on a constant threshold decreased significantly. The poverty gap ratio declined to the lowest value recorded across countries. A decomposition analysis of overall relative poverty intensity indicates a sizeable decline despite a roughly unchanged number of poor. This decline was entirely due to increases in the relative average income of the poor and decreases in inequality among the poor.

# Italy

134. In *Italy*, inequality in the distribution of disposable income increased significantly between the mid-1980s and the mid-1990s, according to different summary measures<sup>61</sup>. This concerned both the working-age and the retirement-age population, although the latter one to a lesser degree. During that period, the three lower income quintiles lost shares at the expense of the fourth and, in particular, the highest quintile. Real incomes improved for all deciles in the later 1980s, but fell for the lower half of the distribution over the whole period. Relative incomes shifted from younger to older age groups: children and young adults lost ground while all age groups over 40 gained. Also, one-adult households (with and without children) recorded relative income losses.

135. The shares of gross earnings going to lower and middle income groups among those of working-age decreased, and related to that, tax shares fell, too. At the same time, Italy was the only country in which the share of public transfers going to the lower income group fell significantly to the lowest value recorded (20%). A decomposition analysis of overall inequality suggests that the contribution of self-employment and capital income to inequality among the working-aged was more important than the contribution of gross earnings; furthermore, this contribution increased during the last ten years (Italy is the only country in which this feature has been found). This effect was entirely due to increased dispersion of self-employment and capital incomes while the changing share did not contribute to the increase in inequality. Taxes played an equalising contribution, whereas the role of transfers was more neutral.

136. Also, employment polarisation contributed to the rise in income inequality among those at working-age. This was to the biggest part due to the increase in inequality *within* each of the employment groups: workless households, multi-adult households with one worker and, particularly, fully employed households. Also, changing shares of those household types drove inequality up, while increasing dispersion between those groups contributed less.

137. During the decade, public transfers were redistributed from children and older adults (those aged 51 to 65) to elderly age groups, particularly older senior citizens. Also prime-age adults gained transfer shares. In the mid-1980s, non-pension transfers were distributed almost proportionally across the distribution with app. 30 % of transfers going to the three bottom and the three top deciles, the remaining 40 % going to the four middle deciles. Over the decade, the middle income groups gained transfer shares at the expense of both the lower and higher income groups among the working-age population. Although the importance of non-pension transfers in the income package of lower income groups somewhat increased over the decade, this share still constitutes one of the lowest across all OECD countries studied. The share of public pension transfers in total income increased significantly among the higher income groups of the retirement age population, but decreased among middle and lower income groups

138. Related to increases in income inequality, relative poverty rose significantly, the increase being larger for higher relative thresholds. But also, "absolute" poverty using a constant threshold increased, despite average real incomes rising. This only happened in three of the OECD countries reviewed. The child poverty rate increased more than that of working-age adults, and poverty rates of the elderly fell. Among the working-age population, poverty reduction through tax/transfers was lower than in other OECD countries. For some population groups (children, single parents), poverty rates were the same before and after accounting for net transfers.

Part of this increase, also reported in national studies, may be due to a new methodology of the income survey in the early 1990s. National authorities believe that sampling and measurement of lower income households are now more accurate. There is no way to adjust for this effect.

# Mexico

139. In Mexico, the distribution of disposable incomes remained broadly stable over the past 20 years. Some indicators point to a slight decrease in inequality between the mid-1970s and late 1980s, and to a slight increase between the late 1980s and mid-1990s. Levels of inequality were higher than in other OECD countries in all years. During the first sub-period real incomes rose for lower income groups but declined for decile groups above the median. During the second sub-period, real incomes rose by 5 to 7 % for all decile groups except for the two highest deciles where they increased by over 10 %. In terms of relative income shares, the highest quintile gained shares and all other quintiles lost.

140. Relative incomes of the elderly, especially those aged 65 to75, and of young people (18-25) decreased considerably while those of age 41 to 50 increased between the late 1980s and the early 1990s. Among the working-age population, persons in single adult households (with and without children) recorded relative income losses while those in multi-adult households without children recorded increases; however, these three population groups account for a smaller part of the population as 87 % of the working-age population live in multi-adult households with children (OECD average 56 %).

141. The share of net earnings going to lower and middle incomes among the working-age population decreased at the expense of the share of the three top deciles. At the same time, the share of transfers going to lower incomes increased but the level is still below their population share. On the other hand, over half of public transfers were going to the three top deciles although the trend is declining.

142. Total public transfers taken together were redistributed from elderly to those at working age, in general. The share of transfers going to persons aged 65 and over decreased by 6 percentage points while the share going older adults (51 to 65) and young people (18 to 25) increased by 2 to 4 percentage points. However, prime age adults (26 to 40) also lost transfer shares, by 2 percentage points.

143. Between the late 1980s and mid-1990s, employment polarisation took place in Mexico as the share of both fully employed and workless households increased and the share of multi-adult households with only one worker decreased. Increases in dispersion *within* these household types were the main contributor to increasing inequality among those of working age. Movements in dispersion *between* these types had a neutral effect while *structural* changes contributed to decrease inequality.

144. Relative income poverty declined slightly between the mid-1970s and late 1980s and remained stable since then, although levels were still higher than in other OECD countries. Also, the poverty gap ratio remained at a relatively high level: the income of the poor lies, on average, one third below the poverty threshold. Across age groups, the highest poverty rates were recorded for children. Although their share slightly declined between the late 1980s and mid-1990s, more than half of the poor population were children. Poverty rates for elderly increased and are higher than in other OECD countries under review (33 %) but their share in the poor population is much lower (6 %). Across family types and among the working-age population, those living without children have a significantly lower and decreasing poverty risk. Differences in relative poverty risks according to work attachment are less pronounced than in other OECD countries.

### Netherlands

145. In the Netherlands, income inequality among the working-age population increased slightly between 1977 and 1995, the main changes taking place in the period between 1985 and  $1990^{62}$ . Among the retirement-age population, a slight decrease in income inequality during the earlier decade was more than outweighed by an increase in the more recent decade. During the more recent period, relative incomes of both young people (18 to 25) and the elderly, especially older senior citizens (75 and over) declined at the expense of those aged 26 to 50. Among the working-age population, relative incomes of single adults (with and without children) and those living in workless households decreased.

146. Quintile shares among the working-age population developed rather similarly for market incomes and disposable incomes: the lower quintiles lost income shares while the highest quintile gained shares. This indicates that effects of tax/transfers on the distribution changed little during the past decade. A decomposition analysis of income components suggests that the equalising effect of public transfers was higher than in other OECD countries, and this effect increased very slightly during the past decade. The equalising effect of taxes weakened. According to this decomposition analysis, the increased dispersion within gross earnings played a major role for increased overall inequality among the working-age population.

147. Furthermore, employment polarisation contributed to increased inequality among those of working age, mainly through increased dispersion within rather than between the different household employment types: fully employed (where this effect was highest), workless and multi-adult households with only one worker.

148. Between the mid-1980s and the mid-1990s public transfers were redistributed from children and younger age groups (until 40) to those aged 65 and over. Among the working-age population, non-pension transfers went increasingly to lower income groups. Family benefits were more progressively distributed than unemployment benefits. Public old-age pensions were spread almost equally across the distribution among the retirement-age population.

149. Relative income poverty increased, and "absolute" poverty using a constant threshold also increased slightly. Levels, however, remain among the lowest across the countries studied. The increase in poverty intensity was entirely due to a rise in the number of poor, while higher average incomes of the poor relative to the poverty threshold and a more equal income distribution among those prevented overall poverty to increase more significantly. Child and youth poverty rates increased<sup>63</sup> -- both groups together formed almost 60 % of the poor population -- while poverty rates of older adults and the elderly declined. Apart from Canada, the Netherlands have the lowest old-age poverty rate across the OECD countries reviewed in the mid-1990s. A significant increase in poverty risk also occurred for persons living in single parent households and those living in workless households. Over the decade, the effectiveness of tax/transfers on poverty among the working-age population seems to have weakened, as poverty rates after net transfers increased by 2 percentage points more than before net transfers. Across the country sample, this has happened only in Germany and the Netherlands. This concerned in particular children, young persons and single parents: poverty reduction rates due to tax/transfers were as high as 70 % and more in 1985, but below 50 % in 1995.

<sup>&</sup>lt;sup>62</sup> It should be noted that the beginning date of the questionnaire results refer to 1977, a year in which social benefits in the Netherlands were at its peak, and major changes in social security took place between 1977 and 1985.

<sup>&</sup>lt;sup>63</sup> This is related to the fact that students are included in the analyses. A large part of the younger poor population, probably close to 50 %, were students.

### Norway

150. In Norway, the distribution of disposable income widened between 1986 and 1995<sup>64</sup>. This concerned both the working-age and the retirement-age population. The highest quintile gained income shares while the other quintiles lost. Real incomes slightly fell for lower incomes but increased for those above the median. During the decade, relative incomes of the young and of younger adults decreased while those of persons near retirement age (51 to 75) increased. Among family types of working age, single persons without children lost ground.

151. The share of both market and disposable income going to the lower income groups among the working-age population decreased while it increased for the highest quintile. Among market incomes, this concerned in particular gross earnings.

152. As in a majority of countries, a process of "employment polarisation" took place in Norway in the last ten years. However, both multi-adult households with only one worker and workless households increased their relative incomes while those of fully employed households remained at the same (high) level<sup>65</sup>. Changes in dispersion *within* those three household types, in particular within workless households, contributed largely to the increase in inequality among the working-age population, while changes in dispersion *between* those groups made a slightly equalising contribution. Changes in the *shares* of those groups also contributed to the increase in inequality.

153. Over the decade, public transfers taken together were slightly redistributed from those aged 51 to 75 to older adults (41 to 50) and older senior citizens (75+). Non-pension transfers among the working-age population -- family cash benefits and unemployment benefits – were distributed slightly progressive in both years. As was the case in the other three Nordic countries -- but not the other OECD countries -- the share of non-pension transfers in disposable income of the working-age population increased, and the share in the incomes of poorer groups augmented even by more. As in most European countries, the distribution of pensions among the elderly was in both years slightly regressive.

154. The intensity of relative income poverty increased in Norway. The overall increase was in almost equal parts due to an increase in the number of poor, a rising poverty gap and an increase in inequality among the poor. Youth poverty rates increased while old-age poverty decreased. However, persons above 65 still constituted 36 % of the poor population<sup>66</sup> -- the highest share across OECD countries -- and together with those aged 18 to 25 they make up 60 % of the poor. Poverty rates for single parents fell considerably, especially for those who are not working; single parents who are working had a poverty rate below the average of the working-age population in Norway. In general, households with at least one worker had below-average poverty rates (lower than in other OECD countries). Poverty reduction among the working-age population due to tax/transfers strengthened during the past ten years, but could not reverse the trend of increasing poverty rates. Poverty reduction remained very high for children and single parents, but was among one of the weakest for young persons.

<sup>&</sup>lt;sup>64</sup> The reported increase in inequality may be overstated as the information on income in the data is based on tax records: the Norwegian tax reform of 1992 implied that a higher proportion of capital income – which is more unequally distributed than other income sources -- is taxed and thus registered in the tax files.

<sup>&</sup>lt;sup>65</sup> National research has shown that, while income trends for the unemployed have been below average, some groups of non-employed enjoyed above-average income increases, in particular single parents receiving transitional benefits and minimum pension recipients. (Ministry of Health and Social Affairs 1999)

<sup>&</sup>lt;sup>66</sup> Age-specific poverty estimates are sensitive to equivalence scale assumptions. The value of the Norwegian minimum pension benefit was somewhat just below the poverty threshold with the equivalence assumptions used in the study, but would have been above that level when using a steeper equivalence scale.

## Sweden

155. In Sweden, income inequality decreased between the mid-1970s and mid-1980s and increased between the mid-1980s and mid-1990s. Those movements approximately cancelled each other out. This holds for both the working-age and the retirement-age population although inequality increases were somewhat larger for the working-age population. During the first sub-period, real incomes increased faster for lower than for higher deciles while the inverse was the case during the more recent sub-period.

156. A redistribution across ages happened during the more recent decade: relative disposable incomes of persons below 41 years of age (including children) declined substantially<sup>67</sup> while all age groups above 50 gained ground. Also, single adult households (with and without children) lost ground while multi-adult households without children gained.

157. The share of market incomes going to the lower income groups among the working-age population decreased in the past decade while it increased for the higher income groups. Although the trend of both transfers and taxes went in the opposite direction, it could not reverse the overall trend: disposable income shares slightly fell for the lower quintiles and slightly increased for the top quintile. A decomposition analysis of income sources suggests that the increase in inequality among the working-age population was largely due to increases in component inequality of both gross earnings and capital and self-employment income while their changing share did not play a significant role. On the other hand, the equalising effect of taxes was due to both their increasing share and changing distributive pattern.

158. Changing employment patterns contributed mainly through two channels to the increase in inequality among the working-age population: increased dispersion within the group of fully employed households, and the rise in the overall share of workless households.

159. Over the last decade, total public transfers were redistributed from the elderly to prime-age adults, in particular those aged 41 to 50. Non-pension transfers among the working-age population became somewhat more progressively distributed as the share accruing to lower and middle incomes increased at the expense of higher incomes between the mid-1980s and mid-1990s. As was the case in the other three Nordic countries -- but not the other OECD countries -- the share of non-pension transfers in disposable income of the working-age population increased significantly, and the share in the incomes of poorer groups augmented even by more. However, among non-pension transfers, both family and unemployment benefits displayed distributive patterns which can be described as "targeted to middle incomes", in both periods. As for public pension transfers, their share increased for both lower and higher income groups among the elderly but decreased for middle incomes.

160. The intensity of relative income poverty slightly increased over the past decade. This was mainly due to a fall in average incomes of the poor relative to the poverty threshold (expressed in a higher poverty gap ratio) while increases in the number of the poor played less of a role. Old-age poverty rates decreased but those of the youth increased significantly<sup>68</sup>. Sweden is the only country across the sample where poverty rates of single parents declined considerably since the mid-1970s, and these rates are now below the average of the working-age population. At the same time employment participation among single

<sup>&</sup>lt;sup>67</sup> Results relative to the youth population should be interpreted with care, as the estimates are based on a different income unit definition (tax units rather than sociological households) and include students, see Annex 1.

<sup>&</sup>lt;sup>68</sup> These results may be overestimated as they include students' households. Similarly, official estimates of percentages of persons with low incomes, including students, report an overall increase between 1989 and 1997. Alternative estimates excluding students' households report a slight decrease in overall poverty for the same period (Eriksson and Pettersson 1999).

parents is highest in Sweden, as nine out of ten single parents are working. Persons in households with one worker had an above-average poverty risk, which increased over time, indicating the existence of a working-poor phenomenon. The effectiveness of tax/transfers in reducing poverty among the working-aged increased over time, more than in most other countries. Reduction rates were particularly strong (over 75 %) for children and single parents, and they increased specifically for persons in workless households.

## Switzerland

161. In Switzerland<sup>69</sup>, summary distribution measures suggest that the level of disposable income inequality is comparable to other Continental European countries, and the level of relative income poverty is somewhat lower. With 15 %, the share of disposable income going to the three bottom deciles corresponds to the OECD average. However, the share of gross earnings received by the lower income groups is considerably lower, as is -- related to that -- the share of taxes paid. A decomposition of overall inequality among the entire population suggests that the contribution of capital and self-employment to inequality was stronger than the contribution of gross earnings; a similar feature can only be found in two other OECD countries, Belgium and Italy. Transfers and, particularly, taxes played an equalising role. Public transfers made up a much lower share in total disposable income than in most OECD countries. About three quarters of those transfers are allocated to persons aged 51 and over, and just over 5 % go to children.

# Turkey

162. In Turkey, the distribution of disposable income widened significantly among both the workingage and the retirement-age population between 1987 and 1994. For the entire population, the highest quintile gained 5 percentage points income shares while all other quintiles lost. Real incomes fell slightly across the whole distribution, except for the highest decile. Across age groups, relative incomes of children and the elderly fell while the working-age population gained ground, in particular those aged 41 to 50. Across family types, persons living in multi-adult households without children enjoyed higher relative incomes than in any other country, but their population share is lower than elsewhere (Mexico excepted). Indeed, 86 % of the working-age population live in multi-adult households with children. Among the working-age population, those living in workless households (some 4 % of the population) recorded considerable losses in relative income.

163. The share of net earnings going to lower and middle incomes among the working-age population decreased significantly at the expense of the share going to the three top deciles. At the same time, the share of transfers going to lower incomes increased but to a level which is still below their population share. On the other hand, almost half of public transfers were going to the three top deciles. Over the period, total public transfers were redistributed from children and prime-age adults (26-40) to older adults and, in particular, those aged 65 to 75.

164. Overall relative poverty remained at the same level in Turkey (higher than in most other OECD countries) while "absolute" poverty based on constant thresholds increased. Poverty gap ratios were in the range of the OECD average in both years and for both estimates, with incomes of the poor being approximately 30 % below the poverty threshold, on average. Child poverty rates and those of prime-age adults somewhat decreased while poverty rates of the elderly increased. Although the share of children in the poor population fell from 52 % to 47 %, it is still one of the highest across the OECD area. Across

Only one data point, 1992, was available for Switzerland, therefore nothing can be said about trends.

family types among the working-age population, multi-adult households with children but without earners, non-working single persons and single parents have by far the highest poverty risks; for all three groups, poverty rates have significantly increased over the period. Although the share of these three groups in the poor population is much smaller than in most countries reviewed, it increased altogether from 4 % to 8 %.

# United Kingdom

165. In the United Kingdom, the distribution of disposable household incomes widened considerably during the period from the mid-1970s to the mid-1990s, the largest changes happening during the 1980s. During the first sub-period, 1975 to 1985, real incomes increased for higher deciles as well as the lowest decile, while real incomes of the second to fifth decile broadly remained unchanged. During the second sub-period, 1985 to 1995, real incomes increased by 4 to 12 % for lower income groups but by app. 20 % for the highest income groups. In terms of relative changes, the top quintile gained income shares at the expense of all other quintiles during the latter period. Younger age groups lost ground while older age groups gained: relative incomes of children and the youth declined while those of persons near retirement age (51 to 64, and 65 to 75) increased. Across family types, relative incomes of persons living in households with children decreased, in particular those of single parents, whose relative incomes fell to one of the lowest levels across the OECD countries considered.

166. Among the working-age population, the shares of both market incomes and disposable incomes going to lower and middle incomes decreased at similar amounts and those going to the top quintile increased during the past decade. This suggests a broadly unchanged contribution of taxes and transfers over the period: the share of transfers going to lower incomes (bottom 30 %) slightly increased to 55 % (the second highest value recorded across countries) and the share of taxes decreased. A decomposition analysis of income components suggests that the contribution of gross earnings to total inequality -- although by far remaining the major element -- decreased while that of capital and self-employment income increased. The off-setting contributions of both transfers and taxes decreased. The larger contribution of capital and self-employment income to increased income inequality was due to both increased component inequality and a greater share of this income source. The decreased off-setting effect of taxes was almost entirely due to their decreased share in disposable income among the working-age population.

167. As in a majority of countries, a process of "employment polarisation" took place in the United Kingdom in the last ten years as the share of persons in both fully employed and workless households increased while those in multi-adult households with only one worker fell. Relative incomes of the latter category decreased significantly and by more than in other countries reviewed. The contribution of this process to the increase in inequality among those of working age was entirely due to increased dispersion *within* these three household categories (in particular within fully employed households) while changes in dispersion *between* the categories and structural changes overall did not contribute to it.

168. Between the mid-1980s and mid-1990s, the shares of public transfers going to the youth and to older adults (51 to 60) decreased as the shares going to children and to younger adults (41 to 50) increased. The share going to the elderly did not change. Non-pension transfers are distributed more progressively than in other OECD countries, Australia excepted; at the same time the transfer share in total disposable income of the working-age population remained at the same level overall, but increased in incomes of poorer groups. Among non-pension transfers going to the working-age population, both family and unemployment benefits are distributed progressively, with family benefits moving towards more and unemployment benefits moving towards less progression<sup>70</sup>. Public pensions -- their share is decreasing and

Note that those shifts reflect both changes in per-capita transfers and structural changes.

less important in total disposable income of the elderly than in most countries -- were distributed proportionally across the distribution.

169. While income poverty based on a constant threshold slightly decreased, intensity of relative income poverty<sup>71</sup> increased more significantly, driven mainly by increases in the number of poor and, to a lesser extent, an increase in the poverty gap ratio. In particular, poverty indicators for children increased by much more than for other age groups between the mid-1980s and mid-1990s, and children make up 42 % of the poor population -- the third highest poverty share across countries under review. In general, poverty rates for those living with children increased much faster than for those without children. A sharp increase occurred for single parent families: their share among the poor working-age population increased from 20 % to 36 %, with a large majority among them not working. Persons in households with one worker had a below-average poverty risk in 1985 but above average in 1995, indicating the emergence of a working-poor phenomenon. The effectiveness of tax/transfers in reducing poverty among the working-age did not increase over the last decade as in most other countries. Reduction rates weakened in particular for children, single parents and persons in multi-adult households with only one worker.

# United States

170. In the United States, the distribution of disposable household incomes widened between the mid-1970s and mid-1980s, and widened only slightly in the subsequent decade. Between the mid-1980s and mid-1990s, there were some signs of a "hollowing out" of the middle incomes: both the bottom and the top quintile marginally gained income shares at the expense of the three middle quintiles; this phenomenon occurred only in two other OECD countries, Belgium and France. Over the first sub-period, real incomes fell slightly for lower incomes while they increased for incomes above the median. During the second subperiod, real incomes increased for similar percentages over the whole distribution.

171. Over the past decade, relative incomes of both younger age groups (especially those aged 18 to 25) and the elderly (especially those aged 75 and over) declined at the expense of children and older workers. Among the working-age population, relative incomes of persons without children and those living in households with less than two workers decreased.

172. During the past decade, the share of market incomes going to the lower incomes among the working-age population decreased by less than in other OECD countries (Ireland excepted). At the same time, the share of public transfers going to both lower and higher incomes increased at the expense of middle incomes. According to a decomposition analysis, the level of inequality among the working-age population increased only slightly despite an increasing contribution of gross earnings, both via their increased overall share and via their increased dispersion. This was off-set, to a large extent, by a decreasing contribution of capital and self-employment incomes and an increased equalising contribution of a higher tax share.

173. Changes in employment patterns across households contributed to the slight increase in income inequality among the working-age population, especially through the increase of fully employed households. A specific feature of the United States (together with Germany) is that the "between-group" effect was more important than "within-group" and structural effects; i.e. the effect of increasing income dispersion between workless, fully employed and multi-adult households with only one worker was more important than changes in inequality within these groups or changes in their population shares.

Note that those estimates are based on a poverty threshold of 50 % of the median adjusted disposable income which is sensitive to very low incomes. Results using 60 % of the median as poverty threshold broadly confirm the picture; the trends are, however, less dramatic.

174. Over the past ten years, total public transfers were redistributed from elderly workers and those who entered retirement recently (51 to 75) to those aged 41 to 50 and older senior citizens (75 and over). Also, children somewhat gained transfers shares. The United States were the only country where non-pension transfers were redistributed from lower to higher incomes among the working-age population. Among those transfers, family cash benefits show a progressive pattern, but more so in 1985 than in 1995. Unemployment benefits were more targeted to middle incomes in 1985, but showed a somewhat regressive pattern in 1995. However, the overall share of non-pension transfers in disposable income of the working-age population is lower than in most OECD countries and, hence, so is the share in the incomes of those in the three lowest deciles.

175. Both relative and "absolute" poverty (using a constant threshold) increased between the mid-1970s and mid-1980s and slightly decreased between the mid-1980s and the mid-1990s. During the more recent period, poverty rates of both the elderly and children decreased, although children still make up more than one third of the poor population. Poverty rates of single parents (especially those who were working) also decreased but still remaining higher than in all other countries under review. Persons living in multi-adult households with one worker had above-average poverty rates and this risk increased during the past ten years, indicating the emergence of a working-poor phenomenon. The effectiveness of tax/transfers on poverty among the working-age population somewhat increased during the last ten years, as the pre-tax and transfer poverty rate slightly increased while post-tax and transfer poverty slightly decreased. However, poverty reduction rates remained below 25 % for most groups at risk and were, therefore, lower than in most OECD countries.

# ANNEX 1. CONCEPTS, METHODS AND DATA

### 1. The income concept and income unit

176. The income concept used in the study 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, not necessarily related by blood or marriage. Incomes are recorded on an annual basis. Current income is deflated by using the consumer price index (CPI) relative to the initial year.

### 1.1 Income components

- 177. All possible types of income have been grouped into four categories<sup>72</sup>:
  - earnings (ER): the salary income of the household from dependent employment (excluding employers' contributions to social security, but including sick pay paid by social security);
  - capital and self-employment incomes (K+SE): financial gains, real estate rents, occupational pensions and all kinds of private transfers (K) plus self-employment incomes (SE);
  - social security transfers (TR): all kinds of cash transfers from public sources;
  - taxes (TA): direct taxes and employee social security contributions paid by households.

178. *Household disposable income (W)* is then defined as total market income (income from labour, capital and private transfers), plus transfers from general government, less income taxes and social security contributions:

$$W = M + TR - TA;$$

where *M* is market income:

$$M = ER + (K + SE).$$

179. In order to carry out a detailed analysis of the impact of public transfers on the distribution of income in section 4, the category TR has been further decomposed into several type of public schemes:

- old-age cash benefits (OAP);
- disability benefits (DB);

Greater detail is available from the data sets: earnings received by the head of household, spouse and other household earners, and both capital and self-employed income can be identified separately.

- occupational injury and disease benefits (OIDB);
- survivors benefits (SP);
- family cash benefits(FCB);
- unemployment benefits (UB);
- housing benefits (HB);
- benefits on other contingencies (OTH).

180. This income concept has limitations. First, the data measure only cash incomes, thereby excluding any income received in kind. This means that, for example, the implicit rents in the case of house ownership are not included in the data. Further, large lump-sum receipts and certain capital gains are not recorded. Since these income components are likely to be concentrated in upper-income groups or older households which have accumulated assets, the level of income distribution and the age profile of income will be affected. The data also do not take into account most government services provided at subsidised or zero cost. Depending on the structure of programmes, certain households may benefit more than others.

### 1.2 The basic income concept: equivalent disposable income

181. The analysis has been conducted for individuals rather then 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*.
- Second, household disposable income is adjusted for differences in household size to obtain *equivalent household disposable income*. Household disposable income is divided by the square-root of the number of persons in the household<sup>73</sup>. (For example, the equivalent income of a four-person household is household income divided by two.) This is an adjustment that recognises some "economies of scale" of consumption within the household.
- 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) level of their *equivalent disposable income*. This is equivalent to ranking by households weighted by household size. This population weighting is sometimes referred to as "person weights", as opposed to "household weights" (Atkinson *et al.*, 1995).

<sup>&</sup>lt;sup>73</sup> 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 (in that case, household incomes are simply divided by the number of individuals, resulting in per-capita-income).

182. The ranking of individuals in terms of their equivalent disposable income depends to some extent on the equivalence scale chosen, which interacts with the household to which they belong. For example, individuals belonging to larger households would rank higher in the distribution assuming an equivalence scale elasticity of 0.5 -- the one used in the study -- than using an equivalence scale of 1, i.e. under the assumption of no economies of scale <sup>74</sup>.

# 1.3 Population sub-groups

183. Several population sub-groups have been used throughout the report. Three reference populations have been considered: the entire population, the population of working age (18-64), and the population of retirement age (65 and over), on the basis of individual ages. Within some of those reference populations, four groupings were drawn: three on the basis of household characteristics and one on individual age:

- <u>by degree of household work attachment</u>: individuals have been broken down distinguishing those living in households where *no one of the working-age (18-64 years old) members work, at least one works* and *two or more work*. In order to address the important issue of employment polarisation, working-aged individuals have also been regrouped into three different households types:
  - individuals living in *"fully employed"* households: two or more adult households with two or more earners together with single working adult households;
  - individuals living in "workless" households: all households where nobody is working;
  - individuals living in *"mixed-employment"* households: multi-adult households with only one earner;
- <u>by family types</u>: four household types have been distinguished according to the presence of children<sup>75</sup> and to the number of adults:
  - *single parent households*: households with only one adult member with one or more children;
  - *single adult households*: adults living alone without children;
  - two or more adults households with children;
  - two or more adults households without children.
- <u>by age of household head</u>: two household groups have been identified according to this criterion: *household with a working-aged head* (18-64), *households with a retirement-aged head* (65 and over);

<sup>&</sup>lt;sup>74</sup> See Burniaux et al. (1998) for a sensitivity analysis of the results to different assumptions about the equivalence elasticity.

<sup>&</sup>lt;sup>75</sup> Children are defined as individuals below age 18.

- <u>by age of individuals</u>: original data included seven age groups that have been variously combined and re-aggregated throughout the report. The original grouping is as follows:
  - 0-17;
  - 18-25;
  - **•** 26-40;
  - 41-50;
  - **5**1-65;
  - 66-75;
  - 76 and over.

184. Relative income for each group is calculated as equivalent disposable income of the group relative to the mean for the total reference population. The latter is calculated as the mean income of the groups weighted by the shares of each group in the population. To avoid the impact of changing shares of the groups, the weights are those of the earliest period<sup>76</sup>. Changes in group incomes relative to the mean show which groups gain and lose, after controlling for shifts in the structure of the population. The calculation of relative income of group g ( $\tilde{y}_g$ ) for each year is as follows:

$$\widetilde{y}_g^t = \frac{y_g^t}{\sum_g w_g^0. y_g^t}$$

where  $\sum_{g} w_{g}^{0} = 1$ ,  $w_{g}^{0}$  is the weight of group g in the population at the beginning year (t=0) and  $y_{g}^{t}$  is the income of group g in period t.

### 2. Measuring income inequality

185. Several inequality indices and representations can be used to summarise the characteristics of income distribution and its evolution over time. This report makes use of different techniques that are described in the following paragraphs.

## 2.1 Inequality indices

186. Income distributions can be summarised by a single index number. However, these are more or less sensitive to movements in different parts of the distribution. The following four indices are used in the report.

• The  $P_{90}/P_{10}$  decile ratio is calculated as the ratio of the (upper bound value of the) ninth income decile to the (upper bound value of the) first income decile.

<sup>&</sup>lt;sup>76</sup> When analysing changes in relative incomes over time, changing shares can lead to counter-intuitive results. For instance, an increase in the weight of households with no worker (which have lower average incomes) would reduce the mean income of the total population even if there were no change in average income of the individual groups. As a result, it may appear that all groups gain relative to the average.

• The Gini coefficient is calculated as:

$$Gini = \left(\frac{2}{\mu \cdot n^2} \cdot \sum_{k=1}^n k \cdot W_k\right) - \frac{n+1}{n} = \frac{2\operatorname{cov}\left(W_k, \frac{k}{n}\right)}{\mu}$$
$$= \frac{\frac{2}{n}\sum_{k=1}^n (W_k - \mu) \cdot \left(\frac{k}{n} - \frac{1}{n^2}\sum_{k=1}^n k\right)}{\mu}$$

where individuals are ranked in ascending order of disposable income (k = 1, 2, ..., n, where *n* is the total number of individuals);  $\mu$  is the arithmetic mean of disposable incomes per equivalent household member.

The Gini coefficient is derived from the *Lorenz curve*, which plots cumulative shares of the population, from the poorest upwards, against the cumulative share of incomes that they receive. If incomes were equally distributed, the plot would trace a diagonal 45°-line ("line of perfect equality"). At the other extreme -- if the richest unit received all income -- the Lorenz curve would lie along the horizontal axis, and then along the vertical axis at the 100 per cent income share ("line of perfect inequality"). The Gini coefficient is defined as the area between the Lorenz curve and the 45°-line, taken as a ratio of the whole triangle. Therefore, it will yield a value of 0 in the first extreme case ("perfect equality") and 1 in the latter ("perfect inequality"). An increase in the Gini coefficient thus represents an increase in inequality. Modifications of the Lorenz curve (the generalised Lorenz curve and pseudo-Lorenz curve) have also been used in the main text and will be described below.

• The SCV (Squared Coefficient of Variation) index is calculated as:

$$SCV = \frac{\operatorname{var}(W_k)}{\mu^2} = \frac{\frac{1}{n}\sum_{k}(W_k - \mu)^2}{\mu^2}$$

• The MLD (Mean Log Deviation) index is calculated as:

$$M L D = \frac{\sum_{k} \log\left(\frac{\mu}{W_{k}}\right)}{n}$$

where log is the natural logarithm:

$$\mu = \frac{\sum_{k} W_{k}}{n}$$

n; and *n* is the total number of individuals. In order to calculate this indicator it has been necessary to adjust for zero observations (for which the logarithm is not defined). All values of equivalent disposable and market income per household member below 1 % of the average were set at 1 % of the average.

187. It should be noted that these indices have different ranges; all indices have a lower bound of zero, but the upper bound is 1 for the Gini, infinity for the SCV and  $(1 + \log(100)) \log(\mu)$  for the MLD<sup>77</sup>. Therefore, changes of similar magnitude may indicate quite different changes in the degree of inequality depending on the indicator.

188. In addition, each index differs in its sensitivity to changes at various points in the distribution. Relative to other indices, the Gini coefficient is less sensitive to changes in income at the two extremes of the distribution. The MLD is more sensitive to changes at the bottom of the distribution, while the opposite occurs for the Squared Coefficient of Variation (SCV).

## 2.2 "Distributionally adjusted real mean income" and "Generalized Lorenz curves"

189. Economic growth can be valued differently according to how wealth is distributed among individuals. This largely depends on personal and societal preferences. At the same time, several recent studies -- mentioned in the text -- point out that a strong unequal distribution of income may negatively affect the growth of economic aggregates. Two indices presented in section 2 combine distributional and efficiency aspects: the "distributionally adjusted real mean income" (Sen 1976, Atkinson 1997) and the "generalised Lorenz curve" (Shorrocks, 1980). The former is calculated in the following way:

## "Distributionally adjusted real mean income" = real mean income \* [1 – Gini coefficient]

190. This measure has been used in figure 2.1 in order to illustrate how different economic growth would appear were distributional aspects taken into account.

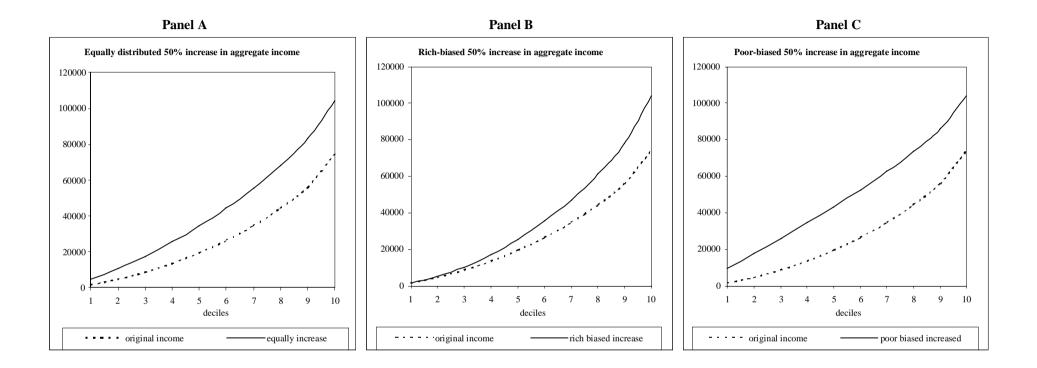
191. The concept of "generalized Lorenz curve" looks at the issue from the symmetrically opposite side. The standardised Lorenz curve (the basis on which Gini coefficient is calculated) describes the distribution of income for a given population, but it fails to account for different levels of income when comparing different populations. For instance, given two equally numerous populations whose total real incomes are one the double of the other but such that their distributions are identical (i.e. each individual holds the same percentage of total income in each distribution), the standardised Lorenz curves and derived inequality measures for these two populations will be exactly the same<sup>78</sup>, although people -- using as underlying yardstick overall social welfare -- may be described generally as better off in the richer one (they all have double real income). In order to account for these differences in income levels, the "generalised Lorenz curve" plots cumulative shares of cumulative mean incomes -- rather than cumulative income shares as in the standardised curve -- against cumulative population shares. In other words, cumulative shares of income over the entire population in the generalised curve sum up to total aggregate income, while in the standard curve they sum up to 100 %. Therefore, in the previous example, when using generalised Lorenz curves for both populations, the picture will be like panel A in figure A.1. Any distribution will show an upward-shifted generalised Lorenz curve when compared with a lower but equally distributed one. Figure A.1 also shows the generalised Lorenz curve for increases in aggregate income that benefit rich individuals more that poor ones (panel B) and vice versa (panel C). As can be seen, rotation movements of the curves allow to graphically discriminate between different types of

<sup>&</sup>lt;sup>77</sup> Data in tables have been multiplied by 100.

<sup>&</sup>lt;sup>78</sup> This follows from the "mean dependence axiom" which requires pure inequality measures to be invariant to proportionate changes in all incomes (Jenkins 1991).

economic growth. When the increase in income mostly benefits top deciles, the upward shift of the curve will be more accentuated on the right side (it implies a counter-clockwise rotation). This is shown in panel B of figure A.1 where an increase of aggregate income by 50 % has been distributed progressively across the distribution. The opposite case is shown in panel C: the increase in aggregate income (again by 50 %) is distributed regressively and the curve appears to be clockwise rotated.

## Figure A.1: Generalised Lorenz curves, typical cases



### 2.3 Decomposing inequality

192. As described above, personal equivalent total disposable income is the income definition used in this report and the role of different income components and different population groups in determining total inequality has been evaluated using two methods. The following section explains in detail these two techniques.

### 2.3.1 Shorrocks decomposition rule

193. This decomposition method, first proposed by Shorrocks (1982), has been used in section 3. Its main advantages are:

- it is *additive*, i.e. overall inequality can be decomposed into contributions due to each income component in such a way that the sum of all contributions equals overall inequality in total disposable income;
- it is *independent* of the particular inequality index applied, i.e. it can be applied to the Gini coefficient, to SCV, MLD or any other measure of inequality indifferently.

194. It should be stressed that the interpretation of results from this decomposition are not always intuitive. In particular, one basic assumption underlying this technique is that equally distributed income components (i.e. each person receives the same amount of income) result in a zero contribution to inequality, while, under certain circumstances, an income component distributed in this manner would be regarded as equalising, in particular if it is assumed that it is "added" to original income which is regressively distributed. "Shorrocks contributions" to inequality are mathematical contributions.

195. Shorrocks states six basic assumptions which a decomposition rule should satisfy, and proved that there exists only one rule satisfying all of them. The six assumptions are as follows:

- symmetric treatment of income components: the contribution of each income component should be independent of how they are ordered;
- symmetric treatment of population: the contribution of each income component should be independent of how individual observations are ranked;
- independence of the level of disaggregation: the contribution of each income component should be independent of how many income types are considered;
- additive consistency: the sum of the contributions of each income component should equal overall inequality;
- normalisation: the contribution of an income component to total inequality is zero if all individuals receive the same amount of income from that component;
- two factor symmetry: the contributions of two different income components whose distributions are simply one a permutation of the other are assigned different contributions to total inequality.

196. Shorrocks proved that these six assumptions uniquely imply the following decomposition rule:

$$s_k = \frac{S_k}{I} = \frac{Cov(Y_k, Y)}{Var(Y)}$$
 where  $\sum_{k=1}^{k} S_k = I$  and  $\sum_{k=1}^{k} s_k = 1$ 

where  $S_k$  is the absolute contribution of component k in terms of a chosen inequality index *I*,  $Y_k$  is the amount of component k and *Y* is total income. Therefore,  $s_k$  is the per cent contribution of component k (per cent contributions add up to 1 over all components).

197. Table 3.2 in section 3 show proportional contributions  $(s_k)$  of each component to disposable income for the mid-90s data points together with the change (in absolute points) in the contribution itself over the period from the mid-1980s to the mid-1990s. Contributions with a negative sign imply a reduction in total inequality. Negative changes in negative contributions indicate a stronger equalising effect (or weaker de-equalising effect).

198. It is also interesting to note that each income component's contribution is twofold: it contributes according to how equally (or unequally) it is distributed; but the extent to which it affects total income also depends on its share in total income, i.e. its importance relative to the other components. Therefore, it is useful to weight the contribution to inequality of each income source with its share in total income. This *relative inequality indicator* for component k ( $c_k$ ) is defined as follows:

$$c_k = \frac{S_k}{r_k}$$

where  $S_k$  is the absolute Shorrocks contribution of component k and  $r_k$  is its share in total income.

199. When looking at changes in inequality over a certain period it is interesting to evaluate how each income source contributed to movements in the inequality index and also the extent to which the contribution was due to changes in the distribution of the component itself or to changes in its relative importance in total income, i.e. its share.

200. This is what is shown in table 3.3. Levels of the Gini coefficient in the mid-1980s and mid-1990s are shown in the first two rows for each country while the third row decompose the absolute change over the period in the part due to each income component (i.e. the absolute change in the Shorrocks contribution over the period). Moreover, each component's contribution (to the change in inequality) is further decomposed along the lines described in the above paragraph, distinguishing the part due to changes in the share of each component in total income and the part due to changes in the its distribution. These values are calculated as follows:

contribution of component k to change in overall inequality =  $S_{k, mid90s}$  -  $S_{k, mid80s}$ 

part due to changes in the share of component k in total income =  $\Delta r_k \cdot c_k$ 

part due to changes in the share of component k in total income =  $\Delta c_k \cdot r_k$ 

where:  $\Delta r_k = r_{k,mid90s} - r_{k,mid90s}$ 

$$\overline{c_k} = \frac{c_{k,mid\,80s} + c_{k,mid\,90s}}{2}$$

$$\Delta c_k = c_{k,mid\,90s} - c_{k,mid\,90s}$$
$$\overline{r_k} = \frac{r_{k,mid\,80s} + r_{k,mid\,90s}}{2}$$

201. As above, a negative sign indicates that a component (e.g. transfers) is reducing inequality. In the case of taxes, however, the positive sign indicates a reduction in inequality (this is because their share in total disposable income is negative).

#### 2.3.2 MLD decompositions

202. The decomposition of the aggregate MLD index in terms of groups of the population is shown in table 3.5 in section 3. This decomposition is based on Zyblock (1996). The mean log deviation can be defined as:

$$MLD = \frac{1}{n} \sum_{i} \ln\left(\frac{\overline{y}}{y_i}\right),$$

where  $\overline{y}$  is average equivalent disposable income over the population;  $y_i$  is the income of the  $i^{ih}$  individual; and *n* is the number of individuals.

- 203. When considering sub-groups of the population, this indicator is additively decomposable into:
  - The within-group component -- defined as the weighted sum of the MLD of each group  $(MLD_g^t)$ . The MLD of each group indicates the distribution of income within specific groups; their sum, weighted with the share of each group in the population, shows the importance of the inequality within all groups of the population for total inequality.
  - The between-group component -- *calculated as deviation of the income of the group*  $(y_g)$  *relative to population mean income*  $(\overline{y})$  -- indicates how much the total MLD is affected by differences in relative mean income between groups. This corresponds to the inverse of the relative income of each group described above.

$$MLD^{t} = \underbrace{\sum_{g} w_{g}^{t}. MLD_{g}^{t}}_{withinMLD} - \underbrace{\sum_{g} w_{g}^{t}. \ln\left(\frac{y_{g}}{\overline{y}}\right)}_{betweenMLD}$$

204. To decompose changes of the MLD index over time (for any breakdown by population group<sup>79</sup>), the first difference of the equation above is taken:

In principle this decomposition can be applied to any groupings over the population. In this study, it has been used for analysing the impact of employment polarisation on income inequality, as shown in table 3.5.

 $\Delta MLD = MLD^{t} - MLD^{0}$ 

$$\Delta MLD = \underbrace{\sum_{g} \overline{w_g} \cdot \Delta MLD_g}_{TermA} + \underbrace{\sum_{g} \overline{MLD}_g \Delta w_g - \sum_{g} \overline{\ln\left(\frac{y_g}{\overline{y}}\right)} \Delta w_g - \sum_{g} \overline{w_g} \cdot \left(\Delta Ln\left(\frac{y_g}{\overline{y}}\right) - Ln(\overline{y}_g)\right)}_{TermB} - \underbrace{\sum_{g} \overline{w_g} \Delta \ln\left(\frac{y_g}{\overline{y}}\right)}_{TermC}$$

#### 205. The three terms on the right-hand side can be interpreted as follows:

- term A: the impact of "pure" changes of inequality within each group, keeping the population structure constant;
- term B: the structural component -- i.e. the effect of the changes in the population structure keeping constant the within-group and between-group components;
- term C: the impact of "pure" changes in inequality between groups when the population structure is held constant.

#### 2.4 The distribution of various transfer components: Pseudo-Lorenz curves

206. The distribution of various transfer components is analysed in figures 4.3 and 4.5 by means of their respective Pseudo-Lorenz curves. Cumulative shares of the component under consideration are plotted on the vertical axis against cumulative population deciles on the horizontal axis ranked according the distribution of total disposable income. The standard Lorenz curve for a given variable *x* distributed over a certain population shows cumulative shares of x (total income or any of its components) against population deciles ranked according to the distribution of *x itself* on the vertical axis. The pseudo-Lorenz curve, on the contrary, keeps population deciles ordered according to total disposable income and plots on the vertical axis cumulative shares one of its components.

207. Therefore, a convex pseudo-Lorenz curve points to a regressive-type distribution assigning higher shares to higher deciles, whereas a progressive distribution will be represented by a concave pseudo-Lorenz curve. This is the case for many types of transfers as shown in figure 4.3. By means of the pseudo-Lorenz curve, it is also possible to identify some "typical" distributions against which actual ones can meaningfully be compared. Figure A.2 presents four typical cases: Panel A shows a standard regressive distribution, i.e. shares increase with decile ranking. The opposite case, a regressive distribution, is shown in panel B. Panel C represents a tail-biased distribution in which shares are higher in the tails of the distribution (very low and very high incomes) and lower in the middle. The opposite case of a middle-income biased distribution is shown in panel C.

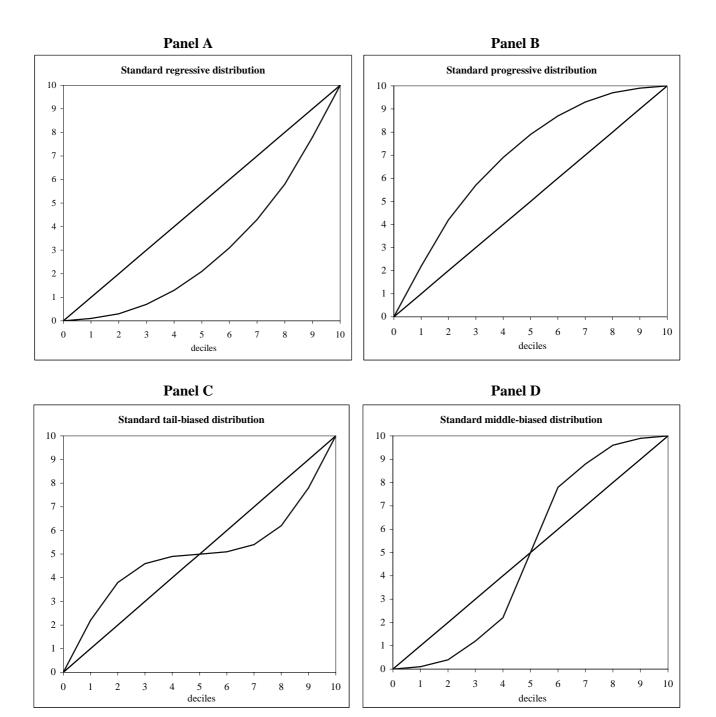


Figure A.2: Standard cases for Pseudo-Lorenz curves

### 3. Measuring income poverty

208. Income poverty in this study is defined as having an adjusted disposable income below a certain percentage of the median adjusted disposable income. The standard poverty threshold is 50 % of median income, although tables 5.1 and 5.2 present results for additional thresholds: 40 %, and 60 %, respectively. Estimates for both relative and constant thresholds are presented. In the first case, poverty thresholds are fixed in terms of real median income in each period. In the latter case, poverty thresholds are fixed in terms of real median income in the initial period.

# 3.1 Poverty indicators

209. The study makes use of three basic poverty indicators, each of them highlighting different aspects of the phenomenon.

210. The first one is the "*head count*" *ratio* (*H*), a measure of the *incidence* of poverty, i.e. how many people are affected by low-income conditions. The head count ratio -- or *poverty rate* -- is calculated as the percentage of persons with an equivalent household disposable income below a given poverty threshold.

211. The second one focuses on the *intensity* of poverty, i.e. how severe is the economic situation of the poor. The indicator for this dimension of poverty is the *average income gap ratio* (*I*): the difference between the poverty threshold and average disposable income of the poor, as a percentage of the poverty threshold:

$$I = \frac{\left(z - \mu_p\right)}{z} = \frac{\left(\frac{1}{p}\sum_{k=1}^{p}\left(z - W_k\right)\right)}{z}$$

where z is the poverty threshold,  $\mu_p$  is average income of the poor and  $W_k$  is individual income and p the number of poor.

212. Finally, the third indicator combines incidence and intensity of poverty with the distribution of income among the poor. This is the *Sen poverty index* (*S*), first proposed by Sen (1976) and defined as the head-count ratio multiplied by the sum of the income-gap ratio and the Gini coefficient of the poor weighted by 1 minus the income gap ratio:

$$\mathbf{S} = \mathbf{H} \cdot [\mathbf{I} + (1 - \mathbf{I}) \cdot \mathbf{G}_{p}]$$

where  $G_p$  is the Gini coefficient of the poor.

213. The Sen index can be interpreted as the weighted sum of poverty gaps of the poor, and lies between 0 (when everyone has an income above the poverty threshold) and 1 (when everyone is below the poverty threshold and the distribution among the poor is characterised by perfect inequality). *S* equals *H* in the case of perfect inequality among the poor (i.e.  $G_p = 1$ ), and *H*·*I* in the case of perfect equality among the poor (i.e.  $G_p = 1$ ), and *H*·*I* in the case of perfect equality among the poor (i.e.  $G_p = 1$ ).

For a discussion of the methodology and axiomatic of the Sen Index, see Förster (1994a).

### 3.2 Decomposition of changes in poverty

214. When analysing trends over time, the Sen index is particularly helpful as it allows for a clear decomposition of overall change in poverty into its three components: the part due to a change in the incidence of poverty (number of poor), the part due changes in intensity (low-income gap) and the part due to changes in inequality among the poor. This decomposition has been used for table 5.3 and is based on a first-order Taylor approximation of the change in the index over time. Considering the variation in the Sen index from period 0 to period t:

$$S^{t} - S^{0} = \Delta S = \underbrace{\Delta H \cdot \left[I^{0} + (1 - I^{0}) \cdot G_{p}^{0}\right]}_{incidence} + \underbrace{\Delta I \cdot \left[H^{0} \cdot (1 - G_{p}^{0})\right]}_{intensity} + \underbrace{\Delta G \cdot \left[H^{0} \cdot (1 - I^{0})\right]}_{inequality} + \varepsilon$$

where  $\Delta H = H^t - H^0$ 

$$\Delta I = I^t - I^0$$
$$\Delta G_n = G_n^t - G_n^0$$

are changes in the head-count ratio, in the income gap and in the Gini of the poor, respectively.  $\epsilon$  is the second order Taylor error term<sup>81</sup>.

### 3.3 Relative poverty risk: the representation index

215. Another important aspect of poverty concerns the extent to which population sub-groups are more or less represented in the poor population. This, in turn, defines the risk of poverty related to each group.

216. Poverty risk involves two dimensions: it is jointly determined by the poverty rate within each group (i.e. the share of poor individuals in the group) and the importance of the group in the poor population (i.e. the share of poor individuals belonging to the group). The *representation index* (or relative risk index) is calculated as the ratio between group specific poverty rate and overall poverty rate:

$$R_k = \frac{H_k}{H}$$

where  $H_k$  is the head-count ratio of the k-th group and H is the overall head-count ratio.

217. Tables 5.4, 5.5 and 5.6 show representation indices for different population breakdowns.

For the results in table 5.3, the error term was in general lower than 10%. The decomposition rule described was confirmed to be a good approximation of the change in the Sen index by Achdut and Kristal (1993).

# 4. The source and nature of the data

### 4.1 National data sources

218. The data used in this report have been collected for twenty-one countries by sending a common questionnaire, in two "waves", to national experts. The list of member countries surveyed is as follows: Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Japan, Mexico, the Netherlands, Norway, Sweden, Switzerland, Turkey, the United Kingdom and the United States. Most of the analysis in the paper is, however, confined to 19 countries<sup>82</sup>. The contents of this questionnaire are described below. The Information was provided on the basis of national data sources -- surveys or tax files – summarised in Table A.1.

For Japan, only data for the "first wave" of the questionnaire -- covering exclusively the entire population - were available. For Switzerland, no trend data were available.

Country	Survey	Available years			
Australia	Household Expenditure Survey	1976, 1984, 1994			
Austria	Microcensus	1983, 1993			
Belgium	Tax files	1983, 1995			
Canada	Survey of consumer finances	1975, 1985, 1995			
Denmark	Law model data base	1983, 1994			
Finland	Finnish income distribution survey	1976, 1986, 1995			
France	Family budget survey	1984, 1989, 1994			
Germany	Socio-Economic Panel	1984, 1989, 1994			
Greece	Household Budget Survey	1974, 1988, 1994			
Hungary	Socio-Economic Household Panel	1991, 1997			
Ireland	Survey of Income Distribution and Living in Ireland Survey	1987, 1994			
Italy	Survey of household income and wealth	1984, 1991, 1993			
Japan	National Survey of Family Income and Expenditure	1974, 1984, 1994			
Mexico	Survey of household income and expenditure	1977, 1989, 1994			
Netherlands	Income survey and Income panel survey, based on tax files	1977, 1985, 1990, 1994			
Norway	Income Distribution Survey	1986, 1995			
Sweden	Income Distribution Survey, based on tax records	1975, 1983, 1990, 1995			
Switzerland	Survey on Living Standards, income and wealth	1992			
Turkey	Household Income and Consumption Expenditures Survey, Household Income Distribution Survey	1987, 1994			
United Kingdom	Family Expenditure Survey	1975, 1985, 1991, 1995			
United States	Current Population Survey	1974, 1984, 1995			

Table A.1 National data sources and available years

Source: OECD Questionnaire (1999).

219. In order to be able to study longer time periods and analyse more details, data were drawn from national sources rather than international data sets based on comparable definitions -- such as those derived from the European Community Household Panel (ECHP) of those in the Luxembourg Income Study (LIS) datasets, which were used by Atkinson *et al.* (1995). An effort has been made to harmonise concepts by using common terms of reference for the questionnaire sent out. Table A.2 compares levels of basic inequality and low-income indicators (Gini coefficients and low-income rates for the entire population) from international sources with those obtained from the OECD questionnaire. With a few exceptions, results are, in fact, similar. Nevertheless, the lack of consistent cross-country definitions for components of income, population coverage, etc. and methods of treatment of certain observations makes cross-country comparisons of the degree of inequality or poverty less reliable. The main focus of the study was therefore on changes rather than levels of income inequality and poverty.

Table A.2 Comparison of inequality and low-income indices: Luxembourg Income Study,
EUROSTAT and OECD Questionnaire

	Reference years			Gini coefficients			Low-income rates	
	Eurost	LIS	OECD	Eurostat	LIS	OECD	LIS	OECD
Australia		1994	1994		32	31	12	9
Austria	1995		1993	28		24		7
Belgium	1995	1992	1995	29	23	27	6	8
Canada		1994	1995		29	29	11	10
Denmark	1995	1992	1994	23	24	21	7	5
Finland	1996	1995	1995	24	23	23	4	5
France	1995	1994	1994	29	29	28	8	8
Germany	1995	1994	1994	29	30	28	11	9
Greece	1995		1994	34		32		14
Ireland	1995		1994	35		32		11
Italy	1995	1995	1993	31	35	34	13	14
Netherlands	1995		1995	27		26		6
Norway		1995	1995	••	24	26	5	8
Sweden		1995	1995	••	23	23	9	6
United Kingdom	1995	1995	1995	33	34	31	11	11
United States		1995	1994		37	34	18	17

Source: EUROSTAT (2000), LIS (1999) and OECD Questionnaire (1999).

220. Problems of under-reporting of incomes exist for all countries. While these problems are small for earnings, they are much more important for other components of income. Self-employment income differs substantially in definition across countries. Under-reporting of capital and property incomes is often significant. Transfer payments are also often under-reported in survey data, particularly for incometested benefits. Moreover, standard OECD categories of public transfers not always fit the complexity of country specific welfare systems; therefore data are not perfectly comparable even if efforts have been made in this direction.

221. Finally, a few country specificities arise. For Italy, the Netherlands and Sweden there were breaks in data series, due to changes in the income concept or changes in the sampling procedure. While it was possible to adjust for these effects in the case of the Netherlands and Sweden, an adjustment was not possible for Italy.

222. In Canada and Germany, self-employment incomes are included in the component "earnings" (ER) rather than lumped together with capital income (K). In Austria, a large part of self-employment and capital income is excluded from the estimates<sup>83</sup>.

223. In Belgium and Sweden, the income unit is defined as tax unit rather than sociological household, due to the source of data. Therefore, the average household size is underestimated<sup>84</sup>. The share of units headed by young persons is overestimated which is likely to bias the incidence of low incomes and level of inequality upwards<sup>85</sup>.

224. In some countries, data on tax payments were not available (Austria, Greece, Hungary, Mexico and Turkey). These countries have been excluded from calculations involving gross incomes, e.g. from Panel A. in table 3.1.

## 4.2 The OECD questionnaire on distribution of household incomes

225. The OECD questionnaire on income distribution and poverty in OECD countries included 12 tables, which were provided based on two different assumptions about economies of scale of household consumption (see below) and for three reference populations: the entire population; the population of working age (18 to 65); and the population of retirement age (above 65), based on the age of individuals. It also included a disaggregation of household types, with regard to the age of the head, presence of children, and employment status of adult household members. Income inequality was analysed in terms of income sources, household structure, as well as attachment to work and age categories, with particular attention paid to developments at the bottom of the distribution.

<sup>&</sup>lt;sup>83</sup> Therefore, inequality estimates are biased downwards. A comparison of estimates from national data sources used for the questionnaire showed that the inclusion of those income components would increase the Gini coefficient by 5 to 10 % for the entire population and by 10 to 14 % for the working-age population.

<sup>&</sup>lt;sup>84</sup> On the basis of the Belgian data used for the OECD questionnaire, the average household size for 1995 was estimated 1.98; on the basis of Census data, the average household size for 1991 was estimated 2.49.

<sup>&</sup>lt;sup>85</sup> Special tabulations from the Swedish data using a sociological household rather than tax unit definition yielded the following inequality measures (in parentheses, values from the questionnaire using tax nit definition): Gini coefficient 21.7 (22.9); MLD 9.1 (11.0); SCV 20.9 (21.7).

#### Time coverage

226. Income distributions refer to a particular year. Trends of income distribution are analysed by comparing static distributions at (generally) three points in time: mid-1970, mid-1980 and the most recent year for which data exist around 1995. National experts selected specific years, depending on data availability. To the possible extent, years were selected such as to correspond to similar phases of the business cycle.

#### Income units

227. The unit of observation of the survey is the household. A household is defined as a collection of individuals, who are sharing the same housing unit. In the distribution, each household is weighted by the number of individuals who belong to this household. Individuals are ranked according with the value of the "adjusted" real disposable income per equivalent household member of the household to which they belong. All incomes, taxes and benefits are reported on an *annual basis*. The total household income is defined as the total disposable income. Current income is deflated by using the CPI deflator relative to the initial year and incomes are generally expressed in national currencies of the initial year. Individuals are ranked according to their *household total disposable income per equivalent household member*. Separate panels refer to the entire population, to the population of working age (18 to 64) and of retirement age (65 and over).

#### Equivalence scales

228. The equivalence elasticity ( $\epsilon$ ) characterises the amount of scale economies that households can achieve. In the absence of scale economies ( $\epsilon$ =1), the "adjusted" income of each household member is expressed as the total household disposable income per capita. An equivalence elasticity lower than unity implies the existence of economies of scale in household needs: any additional household member needs a less than proportionate increase of the household income in order to maintain a given level of welfare. All calculations provided by country experts are replicated under two alternative equivalence elasticity values : no economies of scale ( $\epsilon$ =1) and economies of scale ( $\epsilon$ =0,5).

229. The questionnaire asked for detailed tabulations in the following six main areas:

#### 1) Aggregate trends in income distribution

230. These tables report data on the evolution of income inequality over time: in particular the distribution of total disposable income by deciles; upper bound and mean values; aggregate indicators of inequality (MLD, SCV, Gini coefficient).

#### 2) Income distribution by income sources

231. In this section are reported cumulative shares of income components by decile, average income structure by decile; aggregate inequality indicators at the level of market income (i.e. before taxes and transfers) and of net income (i.e. after taxes and transfers), for all incomes and non-zero incomes. Inequality indices are also decomposed into components specific to each income source and interaction terms.

#### 3) Details on public transfers

232. These tables report details on the distribution by deciles of several public transfers. At least, pensions, family cash benefits, unemployment benefits and other transfers were separated out. In particular, cumulative shares of public transfer components by decile and percentage shares of public transfer components in disposable income of each decile are reported.

#### 4) Income distribution for specific household types

233. Individuals were grouped in household categories depending *first* on the age of the household head (working-age head, i.e. below 65; and retirement-age head, i.e. above 65); and *second*, within each of the two groups, according to the number of adults in the family, the presence of children (for working-age heads only) and to the number of household members in employment (work attachment). This results in 15 specific household types:

	Working-age head	Retirement-age head
By number of adults in the household	Single adults, two or more adults	Single adults, two or more adults
By presence of children	With children, no children	
By work attachment of household members	No worker, one worker, 2 or more workers	No worker, one worker, 2 or more workers

234. The questionnaire reports population shares, mean disposable incomes, decile shares and shares of income components, for these 15 household types. In a separate table contributions of each sub-group to total inequality (as measured by MLD index) are available.

#### 5) Profile of incomes according to the age of individuals

235. For each period considered a static income distribution according to seven age categories ("pseudo cohorts") was established and the changes of the distribution over the time was analysed. In particular, the following data were reported: population shares, mean disposable incomes, decile shares, shares of income components and household structure, for seven age categories. (See table A.1.3.)

#### 6) Household income poverty

236. Poverty was defined in relative and "absolute" terms: for relative poverty estimates, the poverty threshold was expressed as a given percentage (30 %, 40 %, 50 % and 60 %) of the current median income in each year. For "absolute" poverty estimates, the poverty threshold was kept constant (in real terms) over time. The questionnaire includes data on the evolution of "absolute" and relative poverty indicators (*headcount number of poor, income gap ratio,* and *Gini coefficient*). Poverty rates before and after taxes and transfers are also available for all 15 household types and seven age groups.

Table 2.1 Overall trends in income	distribution: summary	results for	the entire population

	Mid70s to Mid80s	Mid80s to Mid90s	Mid70s to Mid 90
Australia	++	-	+
Austria		0	
Belgium		+	
Canada	-	0	-
Denmark		-	
Finland		++	-
France		0	
Germany		+	
Greece		0	
Hungary		-	
Ireland		-	
Italy		+++	
Japan	-	+	0
Mexico	-	+	0
Netherlands	+	++	++
Norway		++	
Sweden	-	+	0
Turkey		+++	
United Kingdom	+++	++	+++
United States	++	0	++

+++	significant rise in income inequality	(more than 12 per cent increase)
++	rise in income inequality	(7 to 12 per cent increase)
+	modest rise in income inequality	(2 to 7 per cent increase)
0	no change	(-2  to  +2  per cent change)
-	modest decrease in income inequality	(2 to 7 per cent decrease)
	decrease in income inequality	(7 to 12 per cent decrease)
	significant decrease in income inequality	(more than 12 per cent decrease)
blank	no data available	_

*Notes*: The results are based on the values of the Gini coefficient for all countries in three reference years which may vary among countries (see Annex 1). For Hungary, the period refers to 1991-1997.

*Source:* Calculations from OECD questionnaire on distribution of household incomes (1999). Data for Japan refer to the first-wave results of the questionnaire, published in OECD (1999).

				ENTIRE P	OPULATION					
	Le	evels				Absolute ch	anges <sup>1</sup>			
	Gini coefficient	P <sub>90</sub> /P <sub>10</sub> Decile ratio	Gini co	efficient	P <sub>90</sub> /P <sub>10</sub> D	ecile ratio	SC	CV	MLD	
	mid 90s	mid 90s	mid70s-mid80s	mid80s-mid90s	mid70s-mid80s	mid80s-mid90s	mid70s-mid80s	mid80s-mid90s	mid70s-mid80s	mid80s-mid90s
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

#### Table 2.2. Trends in inequality indicators for the entire population, the working-age population and the retirement age population

Equivalence scale elasticity=0.5 ENTIRE POPULATION

				WORKING-AG	GE POPULATIO	N							
	Le	evels		Absolute changes <sup>1</sup>									
	Gini coefficient	P <sub>90</sub> /P <sub>10</sub> Decile ratio	Gini co	efficient	P <sub>90</sub> /P <sub>10</sub> D	ecile ratio	SC	CV	MLD				
	mid 90s	mid 90s	mid70s-mid80s	mid80s-mid90s	mid70s-mid80s	mid80s-mid90s	mid70s-mid80s	mid80s-mid90s	mid70s-mid80s	mid80s-mid90			
Australia	29.0	3.9	2.4	-1.4	0.5	-0.4	3.1	-0.4	2.2	0.1			
Austria	23.3	3.0		0.8		0.1		2.2		0.3			
Belgium	27.4	3.3											
Canada	28.7	3.9	0.1	0.1	-0.1	0.0	6.6	-2.4	-1.4	-0.5			
Denmark	20.5	2.5		-0.8		-0.1		0.2		-0.9			
Finland	23.4	2.8	-2.5	3.0	-0.5	0.3	-3.0	9.8	-2.6	1.7			
France	27.7	3.3		1.0		0.2		11.3		-0.1			
Germany	28.2	3.7		2.4		0.6		0.6		2.3			
Greece	32.2	4.3	-7.5	-0.8	-1.9	-0.2	-45.3	-0.3	-10.6	-1.3			
Hungary	28.6	3.5		0.0		0.1		2.6		-1.9			
Ireland	32.1	4.3		-1.6		-0.4		29.0		-4.0			
Italy	34.2	4.7		3.7		0.9		19.3		6.7			
Japan													
Mexico	52.7	11.3	-1.2	2.0	-3.9	1.8	13.2	-19.0	-7.2	2.8			
Netherlands	25.4	3.2	0.9	2.1	0.1	0.5	2.6	2.5	0.8	2.5			
Norway	24.9	2.9		2.7		0.3		1.9		3.2			
Sweden	24.7	3.1	-0.6	2.3	0.0	0.2	-1.1	9.5	-1.5	3.3			
Switzerland													
Turkey	50.5	6.7		7.5		0.4							
United Kingdom	30.4	4.1	3.7	2.7	0.7	0.4	8.4	10.6	3.2	3.1			
United States	33.3	5.3	2.9	0.6	1.0	-0.1	7.5	1.3	3.4	0.8			

Table 2.2. Trends in inequality indicators for the entire population, the working-age population and the retirement-age population (cont.)

				RETIREMENT-	AGE POPULATI	ON						
	Le	evels	Absolute changes <sup>1</sup>									
	Gini coefficient	P <sub>90</sub> /P <sub>10</sub> Decile ratio	Gini co	efficient	P <sub>90</sub> /P <sub>10</sub> D	ecile ratio	SC	CV	MLD			
	mid 90s	mid 90s	mid70s-mid80s	mid80s-mid90s	mid70s-mid80s	mid80s-mid90s	mid70s-mid80s	mid80s-mid90s	mid70s-mid80s	mid80s-mid90s		
Australia	24.9	2.5	-2.9	-4.9	-0.7	-0.8	-0.6	-14.7	-2.7	-1.8		
Austria	24.9	3.1		0.4		0.2		1.5		0.2		
Belgium	25.4	2.7										
Canada	26.5	2.9	-5.8	-2.8	-1.4	-0.4	-10.1	26.0	-6.5	-2.5		
Denmark	21.1	2.2		-2.8		-0.2		-2.2		-3.1		
Finland	21.1	2.5	-6.7	-0.6	-1.0	0.0	-15.7	-0.5	-7.8	-0.5		
France	28.0	3.5		-4.1		-0.4		-30.1		-9.6		
Germany	26.1	3.3		-1.2		0.2		-11.6		-1.3		
Greece	38.4	6.9	-9.9	1.1	-6.4	-0.1	-57.8	5.4	-17.6	0.6		
Hungary	23.1	2.7		-7.2		-0.7		-25.5		-7.6		
Ireland	28.8	3.3		-0.2		0.2		-17.0		-1.0		
Italy	30.3	3.7		1.5		0.1		5.3		1.5		
Japan												
Mexico	55.5	11.4	-10.9	1.4	-3.9	1.9	-120.6	-28.1	-8.1	12.2		
Netherlands	22.9	2.6	-0.4	0.7	0.0	0.0	-1.0	4.9	-0.4	0.5		
Norway	25.1	2.7		1.7		-0.1		10.1		4.2		
Sweden	19.6	2.3	-3.1	1.4	-0.2	0.0	-7.4	4.5	-1.9	0.9		
Switzerland												
Turkey	51.3	8.2		3.8		-1.0						
United Kingdom	27.5	3.1	-0.3	2.1	-0.1	0.3	-6.3	3.4	-0.1	1.6		
United States	35.5	5.1	0.3	0.1	0.3	-0.2	-2.1	2.7	0.7	0.6		

Table 2.2. Trends in inequality indicators for the entire population, the working-age population and the retirement-age population (cont.)

Notes:

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

For Hungary, the period refers to 1991-1997. Inequality indicators multiplied with 100. All indicators are defined in Annex 1.

Source: OECD questionnaire (1999). Data for Japan refer to the first-wave results of the questionnaire, published in OECD (1999).

#### Table 2.3 Relative disposable incomes and population shares, by age groups

				F	Per cent, and	d changes i	n percentage	e points						
			1		1		by age of in	dividuals	1		1		1	
	Child	lren	You	ng	Young	Adults	Adu	lts	Older A	Adults	Younger Sen	ior Citizens	Older Senio	r Citizens
_	age (	)-17	age 1	8-25	age 2	6-40	age 4	1-50	age 5	1-65	age 6	5-75	age 7	5+
	Relative Disposable Income	Population Share												
Australia, 1994 <sup>1</sup>	85.6	26.0	121.6	11.0			111.7	51.9			67.6	11.1		
change, 1984-1994	-1.1	-4.5	-8.2	0.4			4.3	3.1			-4.4	1.4		
Austria, 1993	89.9	21.4	109.3	12.1	101.5	24.2	116.0	12.7	107.5	15.7	90.9	8.2	80.3	5.7
change, 1983-1993	0.1	-3.3	-0.8	0.4	-2.5	24.2	-0.9	12.7		0.3	90.9	-1.1	1.4	0.3
enange, 1965 1995	0.1	5.5	0.0	0.1	2.5	2.2	0.7	1.2	1.1	0.5	2.0	1.1	1.1	0.5
Belgium, 1995	104.9	21.5	82.6	9.8	102.2	22.5	117.5	14.0	108.0	15.9	82.6	9.9	70.7	6.4
change, 1983-1995														
Canada, 1995	87.6	24.1	99.9	11.0	100.5	25.6	113.9	14.8	113.5	12.9	98.7	7.9	94.6	3.7
change, 1985-1995	0.0	-1.5	-2.2	-3.9	-2.5	0.0	-2.5	3.7	3.1	-0.1	7.7	1.1	10.3	0.7
Denmark, 1994	97.2	20.8	96.8	11.3	103.5	22.6	119.2	15.0	113.4	14.9	78.7	9.2	64.7	6.4
change, 1983-1994	-2.5	-3.1	-8.0	-0.9	-5.6	-0.4	4.7	3.5	10.8	0.2	4.8	-0.2	5.0	0.9
Finland, 1995	100.9	23.2	88.2	9.4	102.4	22.3	114.0	16.6	108.0	15.5	81.6	8.2	74.6	4.8
change, 1986-1995	2.8	-1.2	-9.2	-3.0	-0.4	-2.8	-1.9	4.2	4.7	0.7	1.4	1.3	0.8	0.8
France, 1994	94.9	24.2	96.6	9.8	100.0	22.1	114.6	14.5		13.8	93.7	10.1	82.4	5.5
change, 1984-1994	0.4	-3.2	-5.0	-2.0	-5.9	-0.9	2.7	4.0	6.5	-1.9	7.4	3.0	0.4	1.1
Germany, 1994	90.8	19.8	95.9	8.4	99.1	24.8	118.4	12.4	109.7	18.1	92.6	8.9	77.5	7.6
change, 1984-1994	-2.6	0.8	-2.4	-4.5	-3.2	4.6	5.9	-2.8	0.9	0.0	7.6	1.0	-3.1	0.9
	2.0	0.0	2.1		0.2		0.0	2.0	0.5	0.0	110	1.0	511	017
Greece, 1994	97.7	21.3		10.4		20.7	112.7	12.6		19.1	79.6	10.1	71.8	5.7
change, 1988-1994	3.5	-2.6	0.1	-1.3	1.1	0.9	1.2	0.9	-2.1	-0.1	-4.8	2.2	-6.9	0.0

## Equivalence scale elasticity = 0.5

							by age of in	dividuals						
		hildren Young		Young		Adı		Older .		Younger Ser		Older Seni		
-	age (	)-17	age 18-25		age 26-40	age 4	1-50	age 5	1-65	age 6	5-75	age	75+	
	Relative Disposable Income	Population Share												
Hungary, 1997	93.0	19.4	111.2	14.6	104.4	19.0	109.2	14.6	103.9	17.7	87.9	8.8	81.2	5.9
change, 1991-1997	-6.0	-5.0	2.1	4.0	1.4	-2.0	-10.3	2.5	7.7	0.6	7.1	-1.3	4.5	1.3
Ireland, 1994	88.9	33.2	117.3	12.4	108.7	19.7	112.0	12.3	110.8	12.3	77.0	6.3	70.7	3.8
change, 1987-1994	2.1	-3.3	-12.4	0.5	4.1	-1.1	8.8	2.9	-1.1	0.0	-7.8	0.0	-12.8	1.0
Italy, 1993	88.9	20.6	103.5	12.7	105.2	22.3	109.2	13.6	108.3	16.1	85.3	9.8	81.7	5.0
change, 1984-1993	-1.3	-1.9	-3.3	-0.7	-1.0	0.5	3.4	-0.7	0.7	-0.5	3.0	1.9	3.7	1.5
Mexico, 1994	83.2	43.2	112.7	15.7	114.0	20.4	127.6	8.4	120.8	8.0	91.3	2.7	75.3	1.6
change, 1989-1994	-1.0	-2.9	-6.5	0.7	0.6	1.1	14.0	0.2	6.2	0.8	-7.7	0.0	-3.1	0.1
Netherlands, 1995	89.3	21.9	97.2	10.8	105.2	24.8	114.5	14.9	112.0	14.2	90.4	8.4	79.5	5.1
change, 1984-1995	0.0	-2.4	-7.3	-2.7	3.1	0.5	5.3	3.0	0.0	0.4	-2.7	0.7	-4.3	0.6
Norway, 1995	97.6	23.2	93.8	11.4	100.7	22.5		14.1	116.7	13.9		8.3	61.3	6.7
change, 1986-1995	1.1	-1.4	-11.1	-1.4	-3.8	-0.3	2.5	3.2	7.4	-0.8	6.7	-0.6	1.1	1.4
Sweden, 1995	98.9	22.3	60.4	9.9	100.4	21.0		14.3	126.6	15.4		10.2	78.4	6.8
change, 1983-1995	-2.2	-0.3	-10.7	-0.4	-4.7	-1.2	0.8	2.7	7.7	0.6	5.8	-0.2	8.8	-1.3
Turkey, 1994	84.7	38.9	111.3	14.0	103.0	22.1	127.4	10.0	119.3	10.7	89.2	3.2	101.9	1.2
change, 1987-1994	-4.1	-3.4	2.1	-0.1	2.7	1.9	10.8	1.0	2.9	0.2	-14.1	0.5	-3.8	-0.1
United Kingdom, 1995	85.8	26.3	111.6	8.4	106.4	22.9	123.0	13.5	107.8	14.9	79.9	8.8	74.2	5.1
change, 1985-1995	-3.8	-0.1	-2.2	-2.7	1.3	0.5	-0.5	2.3	2.6	-1.2	5.9	0.5	2.0	0.7
United States, 1995	84.1	26.9	93.6	9.4	102.3	24.0		14.7	123.7	13.0	98.8	6.9	82.0	5.1
change, 1985-1995	2.5	0.1	-5.1	-2.5	-1.8	-0.8	0.7	3.8	3.1	-1.1	-0.3	-0.2	-2.4	0.7
Average (17), mid-1990s	91.4	25.3	100.2	11.3	103.9	22.4	117.1	13.5	112.4	14.5	88.0	8.0	78.3	5.0
change mid80s-mid90	-0.6	-2.0	-4.8	-1.2	-1.0	0.1		2.1	3.5	-0.1	1.7	0.5	0.1	0.6

Table 2.3 Relative disposal incomes and population shares, by age groups (cont.)

1. For Australia, the group "Adults" refer to age 26-65, and the groups "Younger senior citizens" to age above 65.

Averages are unweighted and exclude Australia and Belgium. For calculating relative income changes, population shares have been kept constant.

Notes:

#### Table 2.4 Relative disposable incomes and population shares, by family types

Working-age population

Equivalence scale elasticity = 0.5

Per cent, and changes in percentage points

Т

	Single Adult.	Single Adult, with children		, no children	Two Adults,	with children	Two Adults, no children			
	Relative Disposable Income	Population Share	Relative Disposable Income	Population Share	Relative Disposable Income	Population Share	Relative Disposable Income	Population Share		
Australia, 1994	57.4	6.2	92.3	5.6	93.0	53.3	129.0	34.9		
change, 1984-1994	4.5	0.7	-6.9	1.2	1.0	-11.9	-2.4	10.0		
Austria, 1993	87.5	9.5	84.9	7.8	98.3	63.5	110.2	19.1		
change, 1983-1993										
Belgium, 1995	68.6	7.2	125.7	21.5	84.9	52.7	125.4	18.6		
change, 1983-1995										
Canada, 1995	57.4	5.7	85.1	7.3	94.1	53.8	120.1	33.3		
change, 1985-1995	7.0	1.3	-4.5	1.1	0.4	-4.6	-0.8	2.2		
Denmark, 1994	59.4	5.9	75.0	12.0	100.0	48.3	115.2	33.8		
change, 1983-1994	-1.8	0.8	-2.3	2.7	-0.8	-8.7	2.6	5.2		
Finland, 1995	75.8	6.1	74.6	12.4	99.8	52.8	112.1	28.7		
change, 1986-1995	1.2	2.1	-0.2	2.5	0.3	-3.6	-0.6	-1.0		
France, 1994	65.7	3.7	94.3	7.6	97.0	59.5	113.0	29.1		
change, 1984-1994	-7.4	0.3	-0.6	2.0	0.5	-4.9	-0.1	2.6		
Germany, 1994	57.5	3.5	90.3	11.2	95.0	50.2	112.2	35.1		
change, 1984-1994	2.6	1.6	3.5	2.0	-0.3	-2.9	-0.6	-0.7		
Greece, 1994	81.8	1.5	98.0	4.5	97.2	58.1	107.3	35.9		
change, 1988-1994	14.0	-1.0	-5.7	1.1	2.1	-4.5	-4.6	4.4		
Hungary, 1997										
change, 1991-1997										

#### Table 2.4 Relative disposal incomes and population shares, by family types (cont.)

		Per cen	t, and changes	in percentage po				
		with children		t, no children		with children		, no children
	Relative Disposable Income	Population Share						
Ireland, 1994 change, 1987-1994								
Italy, 1993 change, 1984-1993	52.3 -5.1		93.4 -4.1	2.3 0.1	91.4 0.5		117.5 -0.6	37.6 3.6
Mexico, 1994 change, 1989-1994	62.4 -12.5		124.1 -9.3		84.9 -2.2		160.5 9.5	9.7 -10.1
Netherlands, 1995 change, 1984-1995	54.9 -5.4		80.1 -10.0	11.5 4.1	93.1 0.7		122.9 1.5	34.0 3.9
Norway, 1995 change, 1986-1995	67.0 1.8		73.2 -7.5		99.1 0.3		116.9 1.5	25.4 -3.0
Sweden, 1995 change, 1983-1995	72.2 -4.0		73.9 -3.1	25.8 2.4	101.4 0.3		130.8 4.7	20.6 0.9
<b>Turkey, 1994</b> change, 1987-1994	65.3 	0.4 	107.5		91.4		168.6 	12.9 
United Kingdom, 1995 change, 1985-1995	51.1 -8.2		91.7 5.1		92.9 -1.2		127.5 3.4	30.3 3.3
United States, 1995 change, 1985-1995	48.9 3.3		98.9 -0.7		93.1 1.2		126.9 -3.0	28.4 -0.3
Average (14), mid-1990s change mid80s-mid90s	61.7 -0.7		88.9 -3.3		95.1 0.2		122.3 0.7	29.8 1.5

Working-age population Equivalence scale elasticity = 0.5

Notes: Two adults refer to two and more adults. Averages are unweighted and exclude Austria, Belgium and Turkey.

For calculating relative income changes, population shares have been kept constant.

		•	ge population ale elasticity = 0.3 es in percentage			
	No	worker	One	worker	Two	workers
	Relative Disposable Income	Population Share	Relative Disposable Income	Population Share	Relative Disposable Income	Population Share
Australia, 1994	48.0	13.7	82.6	31.1	124.8	55.3
change, 1984-1994	2.4	1.7	0.9	-5.9	-1.2	4.2
Austria, 1993	77.1	11.3	86.1	37.2	121.2	51.6
change, 1983-1993	8.2	0.6	-0.5	-9.9	-1.5	9.2
Belgium, 1995	63.9	13.0	92.2	50.4	123.6	36.6
change, 1983-1995						
Canada, 1995	46.8	7.5	79.9	26.2	113.3	66.2
change, 1985-1995	4.4	1.9	-1.3	-2.3	0.2	0.4
Denmark, 1994	61.9	7.8	80.5	25.2	110.0	67.1
change, 1983-1994	4.6	2.5	0.0	-0.1	-0.3	-2.4
Finland, 1995	58.6	7.0	82.7	20.9	106.7	72.1
change, 1986-1995	-3.7	4.2	2.1	-1.5	-0.5	-2.7
France, 1994	67.5	11.7	90.3	38.1	115.6	50.3
change, 1984-1994	-2.4	1.1	2.8	-3.7	-1.9	2.6
Germany, 1994	55.8	11.5	89.3	49.0	122.3	39.5
change, 1984-1994	-9.6	1.5	-1.2	1.6	3.6	-3.1
Greece, 1994	81.3	9.6	88.8	48.5	124.5	41.9
change, 1988-1994	4.1	-1.3	0.8	-6.9	-2.6	8.2
Hungary, 1997	73.3	17.6	101.8	28.8	108.0	53.5
change, 1991-1997	16.2	10.7	12.8	4.1	-0.8	-14.9
Ireland, 1994						
change, 1987-1994						
0						
Italy, 1993	50.8	10.0	77.4	45.2	131.2	44.8
change, 1984-1993	-1.1	4.7	-5.5	-4.9	6.3	0.2
Mexico, 1994	59.1	3.4	90.8	47.9	113.0	48.7
change, 1989-1994						
Netherlands, 1995	62.7	14.1	91.3	35.6	122.3	50.2
change, 1984-1995	-7.2	1.6	-0.5	-12.3	2.9	10.6
Norway, 1995	49.5	11.3	85.8	35.1	115.5	53.6
change, 1986-1995	1.7	4.8	-0.1	-2.6	-0.1	-2.2
Sweden, 1995	58.3	8.0	80.5	36.9	115.9	55.1
change, 1983-1995	3.5	3.3	-3.0	-1.1	1.6	-3.9
Turkey, 1994	59.6	4.4	97.2	40.5	103.5	55.1
change, 1987-1994	-26.5	1.6	4.5	4.3	-1.4	-5.9
United Kingdom, 1995	56.6	13.4	81.4	30.2	121.3	56.4
change, 1985-1995	3.0	0.6	-5.4	-2.5	2.5	1.8
United States, 1995	39.3	6.2	81.6	30.2	115.9	63.6
change, 1985-1995	-2.2	-0.6	-2.0	-1.0	1.3	1.6
Average (16), mid-1990s	59.2	10.3	86.1	34.9	117.0	54.8
change mid80s-mid90s	-0.3	2.4	0.3	-2.8	0.5	0.2

#### Table 2.5 Relative disposable income and population shares, by degree of work attachment of households

Notes: Two workers refer to two and more adults. Averages are unweighted and exclude Belgium and Mexico.

For calculating relative income changes, population shares have been kept constant. *Source:* OECD questionnaire (1999).

					р	-	lence sca		•									
PANEL A.	E	arnings		Capital a		er cent, an employment		s III pe ket inco			overnement	transfers		Taxes		Total d	isposable	e income
	three bottom deciles	four middle deciles	three top deciles	three bottom deciles	four middle deciles	three top deciles	three bottom deciles	four middle deciles	three top deciles	three bottom deciles	four middle deciles	three top deciles	three bottom deciles	four middle deciles	three top deciles	three bottom deciles	four middle deciles	three top deciles
Australia, 1994	6.3	36.7	57.0	13.8	32.3	53.9	7.4	36.0	56.6	62.3	31.1	6.5	3.7	31.1	65.1	13.8	36.9	49.3
Changes, 1984-1994	-1.3	-0.9	2.2	-1.8	2.9	-1.2	-1.5	-0.2	1.7	4.2	-0.3	-4.0	-6.6	-3.1	9.8	0.6	0.7	-1.3
Belgium, 1995	7.4	38.8	53.8	7.2	16.0	76.7	7.4	33.8	58.8	36.0	41.6	22.5	3.9	32.6	63.5	15.5	36.1	48.3
Changes, 1983-1994		••																
Canada, 1995	9.2	36.7	54.1	11.2	29.3	59.5	9.6	35.5	54.9	41.5	37.7	20.8	6.2	33.4	60.4	14.3	36.4	49.2
Changes, 1983-1994	-0.7	-0.8	1.5	-2.1	1.7	0.4	-0.9	-0.5	1.4	-0.3	-0.6	0.9	-0.8	-0.7	1.4	0.0	-0.3	0.2
Denmark, 1994	11.1	39.0	49.9	13.5	27.3	59.2	11.4	37.8	50.8	43.4	38.9	17.7	14.1	37.2	48.7	18.3	38.5	43.2
Changes, 1983-1994	-0.7	-0.8	1.5	-9.7	-3.2	12.8	-2.0	-0.8	2.8	5.1	-1.4	-3.7	0.2	-2.2	2.0	0.5	-0.1	-0.4
Finland, 1995	7.5	36.8	55.7	18.4	31.9	49.7	10.2	35.6	54.2	43.2	40.4	16.4	9.8	33.4	56.8	17.0	37.4	45.6
Changes, 1986-1995	-4.4	-1.2	5.6	-3.9	-2.4	6.3	-3.6	-1.7	5.3	2.2	1.5	-3.8	-1.1	-1.0	2.1	-1.0	-1.2	2.3
France, 1994	10.7	35.7	53.6	12.1	20.8	67.1	10.9	33.5	55.6	35.6	39.3	25.1	8.7	23.5	67.9	15.6	35.5	49.0
Changes, 1984-1994	-0.4	-0.9	1.3	-4.4	-1.4	5.8	-0.9	-1.3	2.2	2.3	0.8	-3.1	-3.8	-2.3	6.1	-0.2	-0.8	0.9
							l											

## Table 3.1. Allocation of income components across three income groups, working-age population, mid-1980s to mid-1990s

Table 3.1. Allocation of income components across three income groups, worki	king-age population, mid-1890s to mid-1990s (cont.)
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PANEL A.	E	arnings		Capital ar	nd self-e	mployment	Mar	ket incor	ne	General ge	overnement tr	ansfers		Taxes		Total di	sposable	income
	three bottom deciles	four middle deciles	three top deciles	three bottom deciles	four middle deciles	three top deciles	three bottom deciles	four middle deciles	three top deciles	three bottom deciles	four middle deciles	three top deciles	three bottom deciles	four middle deciles	three top deciles	three bottom deciles	four middle deciles	three top deciles
		deciles			deciles			deciles					deciles	deciles		deciles	deciles	
Germany, 1994	12.2	37.4	50.4	9.2	28.3	62.5	11.9	36.3	51.8	31.7	37.6	30.7	10.0	36.5	53.6	14.7	36.4	48.9
Changes, 1984-1994	-0.8	1.2	-0.4	-1.6	-0.3	1.9	-1.0	0.8	0.2	-2.2	0.9	1.3	-1.1	2.9	-1.9	-1.5	0.0	1.5
Ireland, 1994	4.8	34.9	60.3	8.9	27.1	63.9	5.7	33.2	61.1	47.1	38.1	14.8	3.3	30.3	66.4	13.3	34.7	52.0
Changes, 1987-1994	-0.1	-0.3	0.5	0.3	4.1	-4.4	-0.1	0.8	-0.7	4.8	-2.9	-1.9	-0.5	-0.5	1.0	0.8	0.4	-1.2
Italy, 1993	10.4	37.2	52.4	5.9	20.3	73.8	9.0	31.9	59.1	20.5	45.0	34.5	6.7	31.0	62.3	12.0	34.8	53.2
Changes, 1984-1993	-3.0	-0.9	3.9	-1.5	-3.3	4.9	-2.6	-1.7	4.3	-5.4	3.3	2.1	-4.1	-1.1	5.2	-1.9	-0.4	2.3
Netherlands, 1995	9.9	38.3	51.8	10.8	30.7	58.6	10.0	37.1	52.8	45.8	36.1	18.1	11.7	36.1	52.2	15.8	37.4	46.8
Changes, 1985-1995	-2.4	0.5	1.9	2.0	2.8	-4.8	-1.7	0.9	0.7	5.0	-2.2	-2.8	-1.7	0.6	1.1	-1.5	0.4	1.1
Norway, 1995	11.6	41.0	47.4	8.7	21.2	70.1	11.0	37.3	51.7	45.1	36.6	18.3	10.2	36.1	53.8	16.3	37.6	46.1
Changes, 1986-1995	-3.7	0.4	3.3	-1.9	-4.3	6.2	-3.4	-0.5	3.9	3.2	-1.3	-2.0	-2.9	-1.8	4.6	-1.4	-0.2	1.6
Sweden, 1995	8.8	37.3	53.9	16.1	30.0	53.9	9.3	36.9	53.9	33.7	40.5	25.8	11.0	35.8	53.3	15.8	38.4	45.8
Changes, 1983-1995	-2.8	-0.4	3.2	-9.4	-5.4	14.7	-3.3	-0.7	4.0	1.3	0.6	-1.9	-1.3	-0.7	2.0	-1.2	0.0	1.2
Turkey, 1994	12.3	35.5	52.2	6.0	18.2	75.8	8.0	23.9	68.1							8.6	25.1	66.4
Changes, 1987-1994	-5.0	-3.7	8.7	-0.5	-5.3	5.8	-1.4	-4.0	5.4							-1.3	-4.0	5.3
United Kingdom, 1995	6.9	36.3	56.7	11.3	28.6	60.0	7.8	34.9	57.4	54.5	33.9	11.7	6.0	32.0	62.0	13.9	35.4	50.7
Changes, 1985-1995	-1.3	-1.6	2.9	-1.4	-0.2	1.6	-1.1	-1.7	2.8	0.4	1.3	-1.7	-1.3	-3.7	5.0	-1.1	-0.9	2.0
United States, 1995	8.9	35.1	56.0	9.2	26.2	64.6	8.9	33.9	57.1	41.4	35.5	23.0	6.3	28.4	65.3	11.8	35.7	52.5
Changes, 1985-1995	0.0	-1.1	1.1	-0.5	-0.5	0.9	-0.1	-0.7	0.8	-2.0	-0.6	2.6	1.0	-1.4	0.4	-0.1	-0.4	0.5
Average (13) mid-1990s	9.1	37.1	53.8	11.5	27.2	61.3	9.5	35.4	55.2	42.0	37.7	20.3	8.3	32.7	59.1	14.8	36.5	48.6
Changes	-1.7	-0.5	2.2	-2.8	-0.7	3.5	-1.7	-0.6	2.3	1.4	-0.1	-1.4	-1.8	-1.2	3.0	-0.6	-0.2	0.8

PANEL B.	Net earnings three bottom four three top		Net capital and self- employment			Net market income			General g	overnement	transfers				Total d	isposable	e income	
	three bottom deciles	four middle deciles	three top deciles	three bottom deciles	four middle deciles	three top deciles	three bottom deciles	four middle deciles	three top deciles	three bottom deciles	four middle deciles	three top deciles	three bottom deciles	four middle deciles	three top deciles	three bottom deciles	four middle deciles	three top deciles
Austria, 1993										26.8	40.9	32.3				16.5	37.9	45.6
Changes, 1983-1993										2.3	-0.3	-2.0				-0.4	-0.4	0.7
Greece, 1994	9.6	36.7	53.6	14.2	31.4	54.4	11.7	34.3	54.0	20.9	37.7	41.5				13.2	34.8	52.0
Changes, 1988-1994	0.8	-2.5	1.7	-1.2	2.2	-1.1	-0.4	0.1	0.3	4.1	1.8	-5.9				-3.7	-3.5	7.2
Hungary, 1997	8.5	34.0	57.5	8.8	22.6	68.6	8.6	32.0	59.4	28.7	42.8	28.5				15.0	35.5	49.5
Changes, 1991-1997	-1.0	-1.6	2.6	-0.5	-1.0	1.5	-0.9	-1.2	2.1	-1.4	0.7	0.7				0.0	-0.1	0.1
Mexico, 1994	5.3	24.8	69.9	9.1	22.7	68.2	6.4	24.1	69.4	13.7	27.2	59.1				5.2	22.7	72.1
Changes, 1989-1994	-1.5	-5.0	6.5	0.7	3.2	-3.9	-1.0	-1.8	2.8	8.7	-0.5	-8.2				-0.6	-0.6	1.2
Turkey, 1994	12.3	35.5	52.2	6.0	18.2	75.8	8.0	23.9	68.1	15.2	40.2	44.6				8.6	25.1	66.4
Changes, 1987-1994	-5.0	-3.7	8.7	-0.5	-5.3	5.8	-1.4	-4.0	5.4	1.2	-1.6	0.4				-1.3	-4.0	5.3

#### Table 3.1. Allocation of income components across three income groups, working-age population, mid-1890s to mid-1990s (cont.)

*Note:* Averages in Panel A are unweighted and exclude Belgium. *Source:* OECD questionnaire (1999).

#### Table 3.2 Contributions of income components to overall inequality, working-age population, mid-1980s to mid-1990s

		Equivalence scale elasticit	y = 0.5		
		er cent, and changes in percer			
	Percenta	ge contribution to total	inequality of dispose	ble income	
	Earnings	Capital and self- employment	Transfers	Taxes	Total
Australia, 1995	125.7	37.8	-10.2	-53.6	100
changes, 1984-1994	20.8	7.5	-1.3	-27.6	100
Austria, 1993					
changes, 1986-1995					
Belgium, 1995	62.6	95.1	-2.7	-55.0	100
changes, 1986-1995					
Canada, 1995	103.4	53.5	-4.5 -0.9	-52.4 -17.1	100
changes, 1986-1995	3.0	15.0			
Denmark, 1994 changes, 1983-1994	129.8 18.1	48.1 -8.2	-14.5 -7.0	-63.4 -2.9	100
0 /					
Finland, 1995 changes, 1986-1995	97.6 -34.6	69.1 30.6	-11.2 -4.7	-55.5 8.7	100
0 /					
France, 1994 changes, 1986-1995	91.2 7.7	33.2 4.0	-3.1 -3.4	-21.3 -8.4	100
0 /					100
Germany, 1994 changes, 1984-1994	118.2 -18.8	30.5 16.0	0.0 -6.6	-48.9 9.4	100
0 /					
Greece, 1994 changes, 1984-1994					
Hungary, 1997					
changes, 1984-1993					
Ireland, 1994					
changes, 1984-1993					
Italy, 1993	36.8	100.6	3.5	-40.8	100
changes, 1984-1993	-11.9	11.7	2.0	-1.8	
Mexico, 1994					
changes, 1985-1995					
Netherlands, 1995	126.7	42.6	-11.4	-57.8	100
changes, 1975-1994	6.5	-27.5	-0.3	21.3	
Norway, 1995					
changes, 1975-1994					
Sweden, 1995	141.5	23.5	1.5	-66.5	100
changes, 1975-1994	1.2	20.2	-2.1	-19.4	
Furkey, 1994					
changes, 1985-1995					
United Kingdom, 1995 changes, 1985-1995	93.6 -20.6	51.4 20.0	-8.3 1.9	-36.8 -1.3	100
United States, 1995 changes, 1985-1995	115.6 8.9	31.7 -8.4	-1.6 0.8	-45.7 -1.4	100
changes, 1703-1993	0.7	-0.4	0.0	-1.4	
Average mid 1980s	107.3	47.4	-5.4	-49.3	
change mid80s-mid90s	-1.8	7.4	-2.0	-3.7	

Notes: Data refer to percentage contributions of each income component to total inequality.

Negative changes in contributions (second row) indicate a stronger equalising effect.

Averages are unweighted and exclude Belgium.

Table 3.3. Decomposition of changes in total inequality (Gini coefficient), working-age population, mid-1980s to mid-1990	Js
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_				Equival	lence scal	e elasti	$1c_1ty = 0.3$	5 - Absolu	ite char	ige '			-		
		Earnings		Capital	and self-emp income	loyment		Transfers			Taxes		Tota	l change in Gin	di
-	Part due Shares <sup>2</sup> [1]	e to change in: Component inequalit <sup>3</sup> [2]	Total [1] + [2]	Part due to Shares <sup>2</sup> [1]	change in: Component inequality [2]		Part due 1 Shares <sup>2</sup> [1]	to change in: Component inequality [2]	-	Part due Shares <sup>2</sup> [1]	to change in: Component inequality [2]	Total [1] + [2]	Part due Shares <sup>2</sup> [1]	to change in: Component inequality [2]	Total [1] + [2]
Australia, 1984			31.9			9.2			-2.7			-7.9			30.5
Australia, 1995			36.5			11.0			-3.0			-15.5			28.9
changes, 1984-1994	2.1	2.4	4.6	-1.2	3.0	1.7	-0.2	-0.1	-0.3	-2.1	-5.6	-7.6	-1.3	-0.2	-1.6
Austria, 1983															
Austria, 1993															
changes, 1986-1995															
Belgium, 1983															
Belgium, 1995															
changes, 1983-1995															
Canada, 1985			28.7			11.0			-1.0			-10.1			28.6
Canada, 1995			29.7			15.4			-1.3			-15.1			28.7
changes, 1986-1995	1.0	0.0	1.0	1.4	3.0	4.4	-0.2	-0.1	-0.3	-3.3	-1.7	-5.0	-1.1	1.2	0.1
Denmark, 1983			23.7			12.0			-1.6			-12.9			21.3
Denmark, 1994			26.6			9.9			-3.0			-13.0			20.5
changes, 1983-1994	0.8	2.1	2.9	-2.9	0.8	-2.1	-0.7	-0.7	-1.4	-1.7	1.6	-0.1	-4.6	3.8	-0.8
Finland, 1986			27.1			7.9			-1.3			-13.1			20.5
Finland, 1995			22.9			16.2			-2.6			-13.0			23.4
changes, 1986-1995	-4.3	0.1	-4.2	2.6	5.7	8.3	-1.0	-0.3	-1.3	0.7	-0.6	0.1	-2.0	5.0	3.0
France, 1984			22.3			7.8			0.1			-3.4			26.7
France, 1994			25.3			9.2			-0.9			-5.9			27.7
changes, 1984-1994	-0.4	3.4	3.0	1.6	-0.2	1.4	0.0	-0.9	-0.9	-0.4	-2.1	-2.4	0.9	0.1	1.0

Equivalence scale elasticity = 0.5 - Absolute change <sup>1</sup>

•				~											
		Earnings		Capital a	and self-emp income	loyment		Transfers			Taxes			change in Gi	ni
	Part due	to change in:		Part due t	o change in:	_		o change in:	_		o change in:		Part due t	o change in:	-
	Shares <sup>2</sup>	Component	Total	Shares <sup>2</sup>	Component		Shares <sup>2</sup>	Component		Shares <sup>2</sup>	Component	Total	Shares <sup>2</sup>	Component	Total
	[1]	inequality <sup>3</sup>	[1] + [2]	[1]	inequality33	[1] + [2]	[1]	inequality <sup>3</sup>	[1] + [2]	[1]	inequality <sup>3</sup>	[1] + [2]	[1]	inequality <sup>3</sup>	[1] +
		[2]			[2]			[2]			[2]			[2]	[2]
Germany, 1984			35.4			3.7			1.7			-15.0			25.7
Germany, 1994 Germany, 1994			33.3			3.7 8.6			0.0			-13.0			23.7
changes, 1984-1994	-0.8	-1.3	-2.1	2.2	2.6	8.0 4.9	-0.1	-1.6	-1.7	-0.1	1.4	-13.8	1.2	1.1	2.4
changes, 1984-1994	-0.8	-1.5	-2.1	2.2	2.0	4.9	-0.1	-1.0	-1./	-0.1	1.4	1.5	1.2	1.1	2.4
Greece, 1988															
Greece, 1994															
changes, 1984-1994															
changes, 1964-1994							••	••		••					
Hungary, 1991															
Hungary, 1998															
changes, 1984-1993															
changes, 1904 1995		••					••	••		••	••		••	••	
Ireland, 1987															
Ireland, 1994															
changes, 1984-1993															
Italy, 1984			14.9			27.1			0.4			-11.9			30.5
Italy, 1993			12.6			34.4			1.2			-14.0			34.2
changes, 1984-1993	-0.5	-1.8	-2.3	-0.7	8.0	7.3	0.2	0.5	0.7	-0.8	-1.2	-2.1	-1.8	5.5	3.7
M : 1000															
Mexico, 1989 Movies, 1994															
Mexico, 1994			••												
changes, 1985-1995															
Netherlands, 1984			28.0			16.3			-2.6			-18.4			23.3
Netherlands, 1984			32.2			10.3			-2.0			-18.4 -14.7			25.3 25.4
changes, 1975-1994	-0.4	4.6	4.2	-1.1	-4.4	-5.5	0.6	-0.9	-2.9	2.6	1.2	-14.7 3.7	1.6	0.5	23.4
changes, 1775-1774	-0.4	4.0	4.2	-1.1	-4.4	-5.5	0.0	-0.9	-0.5	2.0	1.2	5.7	1.0	0.5	2.1

#### Table 3.3. Decomposition of changes in total inequality (Gini coefficient), working-age population, mid-1980s to mid-1990s (cont.)

		Earnings		Capital a	ind self-emp income	loyment		Transfers			Taxes		Total	change in Gi	ni
	Part due	to change in:	_	Part due t	o change in:	_	Part due t	o change in:	_	Part due t	o change in:	-	Part due to	o change in:	_
	Shares <sup>2</sup> [1]	Component inequality <sup>3</sup> [2]	Total [1] + [2]	Shares <sup>2</sup> [1]	Component inequality <sup>3</sup> [2]		Shares <sup>2</sup> [1]	Component inequality <sup>3</sup> [2]		Shares <sup>2</sup> [1]	Component inequality <sup>3</sup> [2]	Total [1] + [2]	Shares <sup>2</sup> [1]	Component inequality <sup>3</sup> [2]	Total [1] + [2]
Norway, 1986 Norway, 1995			 			 						 			 
changes, 1975-1994													••		
Sweden, 1983 Sweden, 1995 changes, 1975-1994	0.7	2.9	31.4 35.0 3.6	-0.2	5.3	0.7 5.8 5.1	0.2	-0.6	0.8 0.4 -0.4	-3.3	-2.6	-10.5 -16.4 -5.9	-2.7	5.0	22.4 24.7 2.3
Turkey, 1987 Turkey, 1994						 			 						 
changes, 1985-1995															
United Kingdom, 1985 United Kingdom, 1995 changes, 1985-1995	-2.0	-1.2	31.7 28.4 -3.2	2.5	4.4	8.7 15.6 6.9	0.1	0.2	-2.8 -2.5 0.3	1.1	-2.4	-9.8 -11.2 -1.3	1.7	1.0	27.7 30.4 2.7
United States, 1985 United States, 1995 changes, 1985-1995	1.7	1.8	34.9 38.5 3.6	-2.1	-0.5	13.1 10.6 -2.6	-0.1	0.4	-0.8 -0.5 0.3	-1.4	0.7	-14.5 -15.2 -0.7	-1.9	2.4	32.7 33.3 0.6
Average (11), mid-1980s Average (11), mid-1980s changes, mid-1980s to mid-1	1 -0.2	1.2	28.2 29.2 1.0	0.2	2.5	10.7 13.4 2.7	-0.1	-0.4	-0.9 -1.4 -0.5	-0.8	-1.0	-11.6 -13.4 -1.8	-0.9	2.3	26.4 27.8 1.4

#### Table 3.3. Decomposition of changes in total inequality (Gini coefficient), working-age population, mid-1980s to mid-1990s (cont.)

Notes:

1. Absolute change is the difference in the value of the Gini coefficient.

2. Change in Gini coefficient due to changes in the share of each component in total income. Where the sign is negative, inequality is reduced.

3. Change in Gini coefficient arising from widening or narrowing in the distribution within each component. Where the sign is negative, inequality is reduced. *Source:* OECD questionnaire (1999).

# Table 3.4: Changes in households' employment concentration: population shares and average incomes

Persons in households with working-age head

	Perso	-	s with working cale elasticity = 0.5 ges in percentage poin	C		
	Р	opulation shares	5	Relat	ive average inco	omes
	fully employed	workless	"mixed"	fully employed	workless	"mixed"
Australia, 1994	61.7	13.7	24.5	121.9	49.8	79.8
change, 1984-1994	5.2	1.7	-7.0	-1.6	4.4	1.2
Austria, 1993	62.8	11.3	25.9	121.3	74.5	80.8
change, 1983-1993	13.7	0.6	-14.4	2.1	5.5	-4.0
Belgium, 1995	59.5	13.0	27.5	107.9	63.9	99.9
change, 1983-1995						
Canada, 1995	75.5	7.5	17.0	110.7	47.5	76.4
change, 1985-1995	1.9	1.9	-3.8	0.4	5.2	-2.9
Denmark, 1994	80.3	7.8	12.0	104.6	63.6	87.4
change, 1983-1994	-0.4	2.5	-2.0	-1.2	6.4	4.5
Finland, 1995	86.2	6.9	6.9	103.3	59.6	83.3
change, 1986-1995	-0.8	4.1	-3.3	0.2	-2.9	-0.8
France, 1994	58.2	11.7	30.1	113.4	69.1	88.6
change, 1984-1994		1.1	-5.2	-1.5	-0.9	2.5
Germany, 1994	50.0	11.5	38.5	118.3	56.6	88.2
change, 1984-1994		1.4	-1.5	2.8	-8.7	-1.3
Greece, 1994	45.2	9.6	45.2	123.2	83.4	87.1
change, 1988-1994		-1.3	-7.1	-2.4	6.2	0.4
Hungary, 1997						
	••					
change, 1991-1997						
Ireland, 1994						
change, 1987-1994						 75. (
Italy, 1993	46.9	10.0	43.1	130.2	54.7	75.6
change, 1984-1993		4.7	-4.9	6.2	2.7	-6.3
Mexico, 1994	51.9	3.4	44.6	116.0	57.6	87.7
change, 1989-1994		0.8	-6.5			
Netherlands, 1995	59.3	14.1	26.6	120.2	62.9	89.6
change, 1984-1995		1.6	-16.1	3.1	-7.0	-1.2
Norway, 1995	67.9	11.3	20.8	111.4	49.6	84.8
change, 1986-1995		4.8	-6.8	-0.3	1.8	0.2
Sweden, 1995	84.5	8.0	7.5	103.5	59.8	88.5
change, 1983-1995	-1.2	3.4	-2.2	-0.2	5.0	-1.0
Furkey, 1994						
change, 1987-1994						
United Kingdom, 1995	65.5	13.4	21.2	118.0	57.9	78.9
change, 1985-1995	4.8	0.6	-5.4	2.2	4.3	-7.0
United States, 1995	75.0	6.2	18.8	111.9	38.2	79.4
change, 1985-1995	3.1	-0.6	-2.5	1.5	-3.3	-4.1
Average (15) mid 1990s	64.7	9.8	25.5	115.1	59.1	83.5
Change	4.1	1.8	-5.9	0.8	1.3	-1.4

*Note:* "Fully employed households" are households in which all adult persons have an employment; "workless households": no person has an employment; "mixed households": two or more adult households with only one earner.

Averages are unweighted and exclude Belgium (all six columns) and Mexico (last three columns).

					Equivalence	scale elasti	city=0.5						
		Total ch	ange in M	LD				MLD de	compositior	n due to:			
					Wit	hin inequali	ty	Betw	een inequal	lity	Strue	ctural inequa	ılity
	Total	Within	Between	Structural	Fully employed	Workless	"Mixed"	Fully employed	Workless	"Mixed"	Fully employed	Workless	"Mixed"
Australia, 1984-1994	0.10	0.65	-0.58	0.02	-0.56	0.59	0.62	0.55	-0.79	-0.34	0.38	1.67	-2.04
Austria, 1983-1993	-2.01	-0.83	-0.42	-0.76	-0.88	-0.50	0.56	-0.10	-1.43	1.11	0.82	0.87	-2.45
Canada, 1985-1995	-1.30	-1.51	-0.37	0.58	-1.04	-0.52	0.06	-0.05	-0.69	0.37	-0.02	2.00	-1.39
Denmark, 1983-1994	-0.41	-0.57	-0.39	0.55	0.20	-0.61	-0.16	0.95	-0.53	-0.81	-0.57	1.67	-0.55
Finland, 1986-1995	1.06	0.52	0.20	0.35	0.54	-0.02	0.00	-0.07	0.30	-0.04	-1.04	2.25	-0.86
France, 1984-1994	-0.28	-0.05	-0.02	-0.21	-0.01	-0.43	0.39	0.82	0.35	-1.20	0.20	0.69	-1.10
Germany, 1984-1994	1.29	0.25	0.85	0.19	-0.67	0.30	0.62	-0.88	1.60	0.13	-0.23	0.90	-0.49
Greece, 1988-1994	-0.73	0.08	-0.18	-0.63	0.78	-0.41	-0.29	0.66	-0.54	-0.31	0.50	-0.30	-0.82
Italy, 1984-1993	7.77	4.82	1.25	1.70	2.35	1.01	1.47	-2.22	0.16	3.31	-0.53	4.70	-2.47
Mexico, 1989-1994	3.02	4.12	0.17	-1.27	2.78	-0.48	1.83	1.90	2.01	-3.74	1.92	0.66	-3.85
Netherlands, 1984-1995	1.45	1.24	0.59	-0.37	0.82	0.20	0.21	-0.33	1.39	-0.48	0.29	1.32	-1.98
Norway, 1986-1995	2.64	1.57	-0.35	1.41	0.16	0.91	0.49	0.80	-0.41	-0.74	-1.08	4.33	-1.83
Sweden, 1983-1995	2.02	0.95	-0.26	1.33	1.75	-0.89	0.10	0.25	-0.43	-0.09	-1.05	2.85	-0.47
United Kingdom, 1985-1995	1.77	1.99	-0.14	-0.07	0.97	0.40	0.62	-0.96	-0.85	1.66	0.68	0.67	-1.43
United States, 1985-1995	0.60	0.17	0.36	0.07	-0.33	0.03	0.47	-0.76	0.33	0.79	0.96	-0.34	-0.55

#### Table 3.5 Decomposition of changes in total inequality (measured by MLD), by concentration of employment

Persons in households with head below 65 Equivalence scale elasticity=0.5

*Note:* MLD index refers to mean-log deviation. For decomposition methodogoly, see Annex 1.

	0-17 y.	18-25 y.	26-40 y.	41-50 y.	51-65 y.	65-75 y.	>75 y.
Australia, 1994	26.7	9.7		34.1		29.6	
change, 1984-1994	1.8	1.3		-5.9		2.8	
Austria, 1993							
change, 1983-1993							
Belgium, 1995	13.2	4.0	10.3	7.8	26.2	24.6	13.9
change, 1983-1995							
Canada, 1995	32.4	7.6	17.1	9.5	5.9	2.3	25.3
change, 1985-1995	1.4	-3.3	-4.2	2.5	0.2	0.5	3.0
Denmark, 1994	15.1	8.8	18.1	10.3	18.0	17.5	12.2
change, 1983-1994	-0.3	-2.4	0.7	2.5	0.0	-2.4	1.9
Finland, 1995	26.9	9.7	22.8	13.3	12.2	8.4	6.7
change, 1986-1995	4.3	0.8	2.6	6.0	-5.1	-5.7	-2.9
France, 1994	13.2	4.8	10.3	5.7	21.6	30.0	14.3
change, 1984-1994	-3.6	-2.2	-0.1	0.8	-6.9	9.1	2.9
Germany, 1994 change, 1984-1994	7.5 -0.8	3.2 -2.7	8.1 0.5	3.6 -2.2	22.3 -3.6	30.8 4.4	24.4 4.4
0 /							
Greece, 1994	8.2 -2.7	6.7 -2.6	9.7	6.4 -1.4	31.4 -0.1	25.1 7.1	12.0
change, 1988-1994			-1.3				1.
Hungary, 1997	14.9	11.0	14.6	10.1	23.3	16.3	9.8
change, 1991-1997	-6.6	3.1	-2.5	2.4	1.2	-0.7	3.2
Ireland, 1994 change, 1987-1994	29.6 -2.4	12.1 0.3	15.3 -1.8	9.2 1.7	13.2 0.0	12.9 0.6	7.3 1.3
Italy, 1993 change, 1984-1993	4.9 -1.8	9.0 -0.5	12.2 1.4	5.6 -0.3	27.3 -2.1	27.9 1.0	13.1 2.3
-							
Mexico, 1994 change, 1989-1994	25.1 0.9	16.5 2.0	13.5 -2.0	9.0 0.8	22.7 4.4	8.8 -4.3	4.0 -1.9
-							
Netherlands, 1995 change, 1984-1995	15.0 -2.1	8.1 -3.8	14.7 -1.7	11.2 1.7	19.7 1.1	19.2 2.4	12.1 2.4
-							
Norway, 1995 change, 1986-1995	16.8 0.8	5.8 -0.3	14.4 1.1	8.3 2.5	13.7 -3.0	23.7 -3.9	17.4 2.9
0.1							
Sweden, 1995 change, 1983-1995	16.9 1.7	5.3 0.6	13.8 1.3	7.2 2.3	16.7 0.2	26.1 -3.2	14.0 -3.0
Turkey, 1994	20.4	15.2	13.3	14.4	24.9	8.8	3.0
change, 1987-1994	-4.4	-0.1	-2.9	3.1	1.5	8.8 2.4	5.0 0.3
_							
United Kingdom, 1995 change, 1985-1995	23.1 0.5	5.2 -2.7	14.1 -0.1	8.3 1.8	17.1 -1.2	19.9 0.0	12.3 1.7
United States, 1995	16.4	5.2	11.6	8.4	14.1	25.1	19.
change, 1985-1995	1.4	-1.0	0.7	2.5	-2.2	-3.5	2.1
Average (16), mid-1990s	17.9	8.4	14.0	8.8	19.0	18.9	13.0
change mid80s-mid90s	-0.8	-0.9	-0.5	1.7	-1.0	0.2	1.4

## Table 4.1. Allocation of total public transfers across age groups, entire population, mid-1980s to mid-1990sEquivalence elasticity e = 0.5

Per cent, and changes in percentage points

Notes:

For Australia, only three age groups are available: 0-17, 18-25, 26-65 and 66 and over.

Averages are unweighted and exclude Australia, Austria and Belgium.

			uivalence scale elastic t, and changes in perc	•				
		Non-pensio	n transfers			Old-age pens	ion transfers	
		Working-age				Retirement-ag		
	three bottom deciles	four middle deciles	three top deciles	Total	three bottom deciles	four middle deciles	three top deciles	Total
Australia, 1994	43.4	7.6	1.1	9.4	74.6	55.8	13.2	38.9
change, 1984-1994	7.2	0.3	-0.5	1.1	-10.8	-1.7	2.7	1.4
Austria, 1993	8.0	4.5	2.1	4.0				
change, 1983-1993	1.1	-0.1	-0.2	0.0				
Belgium, 1995	39.9	17.1	6.6	15.6	96.7	99.2	90.4	94.7
change, 1983-1995								
Canada, 1995	15.1	7.2	3.0	6.3	84.9	57.2	29.0	48.2
change, 1985-1995	0.8	0.3	0.3	0.4	-1.2	0.9	4.4	3.3
Denmark, 1994	55.6	25.0	10.2	24.2	120.5	87.8	34.2	70.2
change, 1983-1994	19.4	6.3	1.3	6.6	22.7	16.1	5.1	13.7
Finland, 1995	44.3	19.5	6.5	17.8	50.0	31.0	15.8	27.9
change, 1986-1995	27.2	11.1	2.6	9.8	-18.4	-9.3	-2.6	-7.8
France, 1994	33.0	13.0	4.0	11.7	80.8	83.4	85.0	83.8
change, 1984-1994	3.1	-0.1	-1.1	-0.2	4.3	9.6	12.9	10.5
Germany, 1994	10.3	2.8	1.0	3.0	90.5	83.5	67.7	77.1
change, 1984-1994	-0.8	-1.1	-0.6	-1.0	2.4	-2.1	2.9	1.2
Greece, 1994	2.3	1.7	0.8	1.3	74.6	70.6	49.6	59.0
change, 1988-1994	0.1	0.5	0.1	0.2	5.8	15.3	7.3	9.6
Hungary, 1997	40.9	21.7	9.3	18.5	64.5	74.7	54.1	63.4
change, 1991-1997	8.7	0.8	0.4	1.7	-6.2	3.3	21.4	12.1
Ireland, 1994	53.9	15.3	3.0	14.0	65.8	67.2		47.3
change, 1987-1994	1.8	-1.1	-1.3	-0.4	-1.8	3.6	12.5	7.0
Italy, 1993	12.6	6.7	2.9	5.4	69.5	74.2		63.8
change, 1984-1993	1.9	1.4	-0.4	0.4	-14.2	-6.6		2.7
Mexico, 1989								
change, 1989-1994								
Netherlands, 1995	50.4	 16.0	 6.4	 16.9	 92.7	68.2	35.3	 57.4
change, 1984-1995	0.4	-4.9	-2.3	-3.4	-0.8	-0.9	-0.9	-1.2
Norway, 1995	19.0	7.0	2.8	7.0	93.1	86.9	48.9	69.9
change, 1986-1995	11.2	3.6	1.2	3.6	0.5	6.0	0.3	1.9
Sweden, 1995	62.7	29.8	14.3	27.9	96.2	113.9	112.3	109.7
change, 1983-1995	22.3	9.3	2.3	7.8	6.6	-3.6	5.7	2.5
Turkey, 1994								
change, 1987-1994								
United Kingdom, 1995 change, 1985-1995	42.0	9.2	2.0	10.1	71.0	49.4		40.6
87	4.6	0.3	-0.4	0.1	-5.5	-12.8		-7.5
United States, 1995 change, 1984-1994	19.7 2.1	4.4	1.8	4.8	80.6	52.5		40.9
	2.1	0.3	0.4	0.5	2.2	2.9	2.2	2.5
Average (16) mid-1980s	32.1	12.0	4.4	11.4	80.6	70.4		59.9
change mid80s-mid90s	7.0	1.7	0.1	1.7	-1.0	1.4	5.7	3.5

# Table 4.2. Share of public transfers in total disposable income, for three income groups - Non-pension transfers (working-age population) and pensions (retirement-age population), mid-1980s to mid-1990s Equivalence scale elasticity = 0.5

Note: Averages are unweighted and exclude Austria (retirement-age population) and Belgium.

### Table 5.1. Trends in poverty using a relative threshold <sup>1</sup>, mid 1970s to mid 1990s

	40 % median income	50 % medi	an income	60 % median income
_	Head-count ratio	Head-count ratio	Income gap ratio	Head-count ratio
Australia, 1994	4.5	9.3	31.5	18.8
change, mid-70s to mid-80s	-1.6	0.3	-2.9	2.9
change, mid-80s to mid-90s	0.0	-2.9	7.3	-2.2
Austria, 1993	2.8	7.4	20.7	13.7
change, mid-80s to mid-90s	0.0	1.3	-6.9	2.3
Belgium, 1995	4.1	7.8	31.1	13.2
change, mid-80s to mid-90s	-1.4	-2.8	1.1	-2.3
Canada, 1995	5.7	10.3	27.3	16.5
change, mid-70s to mid-80s	-3.6	-3.9	-6.4	-2.8
change, mid-80s to mid-90s	-1.1	-1.3	-1.8	-1.5
Denmark, 1994	2.0	5.0	25.2	12.0
change, mid-80s to mid-90s	-1.0	-2.0	-0.8	-3.0
Finland, 1995	2.1	4.9	21.8	10.8
change, mid-70s to mid-80s	-3.8	-4.8	-2.8	-5.1
change, mid-80s to mid-90s	-0.3	-0.2	-4.2	0.0
France, 1994	3.2	7.5	23.4	13.5
change, mid-80s to mid-90s	-1.2	-0.5	-9.5	-0.2
Germany, 1994	5.2	9.4	25.4	15.7
change, mid-80s to mid-90s	1.9	3.0	2.5	3.9
Greece, 1994	8.1	13.9	29.9	21.7
change, mid-70s to mid-80s	-3.8	-4.4	-6.4	-4.1
change, mid-80s to mid-90s	-0.7	0.4	-2.9	2.1
Hungary, 1997	4.0	7.3	26.8	13.9
change, mid-80s to mid-90s	-0.6	-1.3	-6.9	-1.4

#### Entire population Equivalence scale elasticity = 0.5 Per cent, and changes in percentage points

	40 % median income	50 % medi	an income	60 % median income
_	Head-count	Head-count	Income gap	Head-count
_	ratio	ratio	ratio	ratio
Ireland, 1994	1.6	11.0	12.0	20.7
change, mid-80s to mid-90s	-2.0	0.4	-11.0	1.1
Italy, 1993	8.5	14.2	35.5	21.9
change, mid-80s to mid-90s	2.7	3.9	5.6	4.9
Japan, 1994	4.4	8.1	28.1	13.9
change, mid-80s to mid-90s	0.6	0.8	2.5	1.0
Mexico, 1994	14.8	21.9	33.8	27.7
change, mid-70s to mid-80s	-2.3	-3.4	-2.9	-2.8
change, mid-80s to mid-90s	-0.8	0.7	0.1	0.2
Netherlands, 1995	3.1	6.3	27.3	13.5
change, mid-70s to mid-80s	0.5	0.6	1.2	1.4
change, mid-80s to mid-90s	1.2	3.2	-5.1	6.4
Norway, 1995	3.4	8.0	28.1	14.6
change, mid-80s to mid-90s	1.4	1.1	5.7	1.7
Sweden, 1995	4.4	6.4	42.1	10.3
change, mid-70s to mid-80s	0.5	-0.8	3.1	-2.7
change, mid-80s to mid-90s	0.9	0.5	7.5	0.5
Switzerland, 1992	3.5	6.2	32.1	11.8
change, mid-80s to mid-90s				
Turkey, 1994	9.6	16.2	28.6	23.4
change, mid-80s to mid-90s	0.1	-0.2	-0.6	-0.9
United Kingdom, 1995	3.8	10.9	19.6	19.5
change, mid-70s to mid-80s	-0.3	0.5	-2.8	4.6
change, mid-80s to mid-90s	2.2	4.0	3.6	1.9
United States, 1995	11.1	17.1	34.7	24.0
change, mid-70s to mid-80s	2.1	2.8	-0.5	2.8
change, mid-80s to mid-90s	-1.2	-1.2	0.2	-0.1
Average (20) mid-1990s	5.3	10.1	27.6	17.0
Change mid80s - mid90s	5.5 0.0	0.3	-0.7	0.7
	0.0	0.5	-0.7	0.7

#### Table 5.1. Trends in poverty using a relative threshold, mid 1970s to mid 1990s (cont.)

Notes:

1. "Relative threshold" poverty lines are fixed in terms of real median income in each period.

Head-count ratio: number of persons in households below the poverty line, in percent of all persons.

Income gap ratio: average shortfall of low incomes with regard to the poverty line.

Averages are unweighted and exclude Switzerland. For Hungary, the period refers to 1991-1997

Source: OECD questionnaire (1999), except for Japan (first-wave results of questionnaire, published in OECD, 1999).

# Table 5.2. Trends in poverty using a constant threshold <sup>1,</sup>mid-1970s to mid-1990s (panel A), and<br/>mid-1980s to mid-1990s (panel B)

		opulation ale elasticity=0.5		
PANEL A. mid-1970s-mid-1990s	40 % median income	50 % media	in income	60 % median income
_	Head-count ratio	Head-count ratio	Income gap ratio	Head-count ratio
Australia, 1994	6.3	15.5	26.5	26.4
change, mid-70s to mid-80s	1.1	5.6	-3.1	8.3
change, mid-80s to mid-90s	-0.9	-2.0	2.5	0.0
Canada, 1995				
change, mid-70s to mid-80s change, mid-80s to mid-90s				
change, inte-oos to inte-oos				
Finland, 1995	0.7	1.6	23.0	3.3
change, mid-70s to mid-80s	-4.1	-7.4	0.6	-11.3
change, mid-80s to mid-90s	-0.8	-0.9	-6.3	-1.2
Greece, 1994	4.2	6.8	30.2	10.4
change, mid-70s to mid-80s	-7.8	-10.2	-8.5	-12.7
change, mid-80s to mid-90s	-0.6	-0.9	-0.4	-0.6
Mexico, 1994	16.2	23.7	37.4	29.6
change, mid-70s to mid-80s	0.0	0.3	-0.3	1.0
change, mid-80s to mid-90s	-1.8	-1.3	1.1	-1.8
Netherlands, 1995	2.3	4.1	31.1	8.4
change, mid-70s to mid-80s	0.7	1.5	-2.9	5.1
change, mid-80s to mid-90s	0.2	0.1	2.0	-2.3
Sweden, 1995	3.4	5.4	42.3	7.4
change, mid-70s to mid-80s	0.5	-0.9	3.6	-3.1
change, mid-80s to mid-90s	0.0	-0.4	7.2	-2.0
United Kingdom, 1995	1.4	3.8	24.0	9.1
change, mid-70s to mid-80s	-0.6	-1.8	-0.5	0.9
change, mid-80s to mid-90s	0.1	-0.8	5.7	-4.8
United States, 1995	9.2	14.3	34.5	20.2
change, mid-70s to mid-80s	1.0	1.4	-0.9	1.2
change, mid-80s to mid-90s	-2.0	-2.6	0.4	-2.3

#### **Entire Population**

PANEL B. mid-1980s-mid-1990s	40 % median income	50 % medi	an income	60 % median income
	Head-count	Head-count	Income gap	Head-count
	ratio	ratio	ratio	Ratio
Austria, 1993	1.3	2.3	29.6	4.7
change, mid-80s to mid-90s	-1.5	-3.7	2.0	-6.7
Belgium, 1995	3.9	6.6	33.2	11.8
change, mid-80s to mid-90s	-1.7	-3.9	3.3	-3.7
Denmark, 1994	2.0	3.0	33.5	7.0
change, mid-80s to mid-90s	-1.0	-4.0	7.4	-8.0
France, 1994	2.3	5.6	24.0	10.3
change, mid-80s to mid-90s	-2.1	-2.4	-8.9	-3.4
Germany, 1994	2.8	5.5	23.9	9.0
change, mid-80s to mid-90s	-0.5	-0.9	1.0	-2.8
Hungary, 1997	12.6	24.2	24.6	37.3
change, mid-80s to mid-90s	8.0	15.6	-9.1	22.0
Ireland, 1994	0.6	1.6	20.0	7.9
change, mid-80s to mid-90s	-2.9	-9.0	-3.0	-11.6
Italy, 1993	7.8	12.3	37.4	19.3
change, mid-80s to mid-90s	2.0	2.0	7.5	2.3
Japan, 1994	2.4	4.4	29.8	7.2
change, mid-80s to mid-90s	-1.4	-2.9	4.2	-5.7
Norway, 1995	3.1	7.0	29.4	13.1
change, mid-80s to mid-90s	1.1	0.1	6.9	0.2
Turkey, 1994	11.6	19.1	29.2	26.9
change, mid-80s to mid-90s	2.0	2.7	0.0	2.6

## Table 5.2 Trends in poverty using a constant threshold, mid-1970s to mid-1990s (panel A), and mid-1980s to mid-1990s (panel B). (cont.)

1. "Absolute" poverty lines are fixed in terms of real median income in the initial period (mid-1970 for panel A, mid-1980 for panel B).

Head-count ratio: number of persons in households below the poverty line, in percent of all persons.

Income gap ratio: average shortfall of low incomes with regard to the poverty line.

For Hungary, the period refers to 1991-1997

Source: OECD questionnaire (1999), except for Japan (first-wave results of questionnaire, published in OECD, 1999).

#### Table 5.3 Decomposition of changes in overall relative poverty between mid-1980s and mid-1990s

	Percentage	F	Relative contribution	of components	
	change in	incidence	intensity	inequality	
	Sen poverty index	poverty rate	Income gap ratio	Gini (poor)	Total
Australia 1984-1994	1%				
Austria 1983-1993	-10%	-92	99	93	100
Belgium 1983-1995	-27%	97	-5	9	100
Canada 1985-1995	-17%	66	20	14	100
Denmark 1983-1994	-31%	91	4	5	100
Finland 1986-1995	-20%	16	47	38	100
France 1984-1994	-32%	14	52	34	100
Germany 1984-1994	63%	76	14	9	100
Greece 1988-1994	-4%	-73	137	36	100
Hungary 1991-1997	-35%	36	30	34	100
Ireland 1987-1994	-48%	-4	54	50	100
Italy 1984-1993	66%	63	19	19	100
Japan 1984-1994	23%	52	26	22	100
Mexico 1989-1994	2%	142	5	-47	100
Netherlands 1984-1995	76%	145	-30	-16	100
Norway 1986-1995	45%	42	33	26	100
Sweden 1983-1995	25%	35	44	21	100
Turkey 1987-1994	-3%	54	46	0	100
United Kingdom 1985-199	84%	72	22	6	100
United States 1985-1995	-5%	135	-5	-30	100
Average (19)	8%	51	32	17	100

Entire population Equivalence scale elasticity=0.5

Notes:

Sen poverty index  $S = P * \{I + (1 - I) * Gq\}$ , where P=poverty rate, I=income-gap ratio and Gq=Gini coefficient of the poor Decomposition methodology defined in the text.

Source: OECD questionnaire (1999), except for Japan (first-wave results of questionnaire, published in OECD, 1999).

### Table 5.4 Poverty rates, shares and relative risk indices, by age groups, mid-1980s to mid-1990s

		I	overty rate	s			shares in	the poor po	opulation			relati	ve risk inde	ex	
	below age 18	18 to 25	26 to 50	51 to 65	above 65	below age 18	18 to 25	26 to 50	51 to 65	above 65	below 18	18 to 25	26 to 50	51 to 65	above 65
Australia, level 1994	10.9	6.1	6.5	14.3	16.1	30.5	7.2	30.2	13.0	19.2	1.17	0.65	0.70	1.53	1.73
Australia, 1984-1994	-4.6	-0.5			-3.2	-8.3	1.5			3.9	-0.10	0.11			0.15
Austria, level 1993	7.3	6.7	5.2	6.4	14.9	21.1	11.0	26.1	13.7	28.0	0.99	0.91	0.71	0.87	2.02
Austria, 1983-1993	1.8	0.2	2.4	1.3	-0.2	-1.2	-1.5	10.7	0.6	-8.6	0.08	-0.16	0.25	0.02	-0.47
Belgium, level 1995	4.1	18.6	5.5	5.1	13.8	11.3	23.4	25.8	10.5	28.9	0.53	2.40	0.71	0.66	1.78
Belgium, 1983-1995															
Canada, level 1995	14.2	13.6	9.0	10.9	2.5	33.3	14.5	35.6	13.8	2.8	1.38	1.32	0.88	1.06	0.25
Canada, 1985-1995	-1.6	2.0	-0.2	-0.9	-6.7	-1.5	-0.3	6.3	0.5	-5.0	0.02	0.33	0.08	0.04	-0.55
Denmark, level 1994	3.4 -1.2	12.6 4.2	2.2 -1.2	1.7 -3.4	9.2 -11.5	15.3 -0.2	30.5 16.1	18.2 1.7	5.4 -5.2	30.6 -12.5	0.74 0.09	2.71 1.52	0.48 0.01	0.36 -0.36	1.97 -0.94
Denmark, 1983-1994															
Finland, level 1995 Finland, 1986-1995	2.1 -0.8	15.3 3.8	3.3 0.4	4.6 -0.3	7.5 -3.2	9.8 -3.8	29.4 1.4	26.3 5.0	14.6 0.4	19.8 -3.1	0.42 -0.13	3.13 0.87	0.68 0.11	0.94 -0.02	1.52 -0.58
,															
France, level 1994 France, 1984-1994	7.1 0.5	8.3 2.2	6.0 0.8	7.8 -2.7	10.7 -7.1	23.1 0.2	11.0 1.8	29.3 7.7	14.4 -6.4	22.3 -3.3	0.95 0.12	1.12 0.34	0.80 0.16	1.05 -0.28	1.43 -0.80
Germany, level 1994	10.6	13.7	8.0	7.9	10.4	22.3	12.2	31.7	15.2	18.2	1.13	1.46	0.85	0.84	1.10
Germany, 1984-1994	4.5	4.8	3.6	2.6	-0.4	4.2	-5.7	7.6	0.2	-6.4	0.17	0.07	0.17	0.01	-0.58
Greece, level 1994	12.3	8.9	8.6	14.7	29.2	19.0	6.7	20.6	20.3	33.4	0.89	0.64	0.62	1.06	2.11
Greece, 1988-1994	-0.3	-1.4	-0.8	1.1	2.6	-3.6	-2.3	-1.3	0.8	6.3	-0.05	-0.12	-0.08	0.05	0.12
Hungary, level 1997	9.7	6.2	7.4	6.6	6.0	25.8	12.4	34.1	16.0	12.1	1.33	0.85	1.02	0.90	0.83
Hungary, 1991-1997	1.7	-0.8	1.6	-1.2	-11.5	3.1	3.8	11.9	0.5	-17.8	0.40	0.04	0.34	0.00	-1.21

Equivalence scale elasticity =0.5

		r	overty rate	S			shares in	the poor p	opulation			relati	ve risk ind	ex	
	below age 18	18 to 25	26 to 50	51 to 65	above 65	below age 18			51 to 65	above 65	below 18	18 to 25	26 to 50	51 to 65	above 65
Ireland, level 1994	13.4	5.1	9.1	11.1	16.7	40.4	5.7	26.3	12.3	15.3	1.22	0.46	0.82	1.00	1.51
Ireland, 1987-1994	0.1	-1.2	-1.1	-0.2	10.9	-5.6	-1.3	-2.9	-0.7	10.3	-0.04	-0.13	-0.14	-0.06	0.96
Italy, level 1993	18.8	14.4	11.8	12.7	15.3	27.3	12.8	29.7	14.4	15.9	1.32	1.01	0.83	0.89	1.07
Italy, 1984-1993	7.3	4.3	4.5	1.4	-1.1	2.1	-0.2	4.2	-3.8	-2.2	0.21	0.03	0.12	-0.20	-0.51
Mexico, level 1994	26.2	14.4	18.4	20.2	32.9	51.7	10.3	24.2	7.4	6.4	1.20	0.66	0.84	0.92	1.50
Mexico, 1989-1994	1.4	-0.5	0.3	0.3	5.0	-2.1	-0.2	0.8	0.6	0.9	0.03	-0.04	-0.01	-0.01	0.19
Netherlands, level 1995	9.1	16.1	4.9	2.1	1.9	31.6	27.6	31.1	4.7	4.0	1.44	2.56	0.78	0.33	0.29
Netherlands, 1984-1995	5.8	9.1	2.2	0.4	0.6	5.8	-2.9	-0.5	-2.8	-0.9	0.38	0.30	-0.09	-0.22	-0.11
Norway, level 1995	4.4	17.7	4.1	4.3	19.1	12.7	25.3	18.9	7.4	35.8	0.55	2.21	0.52	0.54	2.39
Norway, 1986-1995	0.5	8.8	1.3	0.0	-3.2	-1.2	8.8	5.0	-1.7	-10.0	-0.02	0.92	0.11	-0.09	-0.84
Sweden, level 1995	2.7	38.6	3.2	2.3	3.0	9.4	59.6	17.5	5.6	7.9	0.42	6.03	0.50	0.36	0.46
Sweden, 1983-1995	-0.3	10.9	0.3	-0.8	-2.4	-1.9	11.7	1.4	-2.1	-8.9	-0.08	1.36	0.02	-0.16	-0.44
Turkey, level 1994	19.7	12.7	13.2	14.3	23.1	47.3	11.0	26.2	9.4	6.2	1.22	0.78	0.81	0.88	1.43
Turkey, 1987-1994	-0.7	1.5	-1.0	1.8	2.6	-5.1	1.4	0.9	1.4	1.3	-0.02	0.10	-0.05	0.12	0.18
United Kingdom, level 1995	17.4	10.3	8.1	6.3	11.6	41.7	7.9	27.0	8.6	14.8	1.59	0.94	0.74	0.58	1.06
United Kingdom, 1985-1995	7.7	3.7	3.0	1.3	2.7	5.0	-2.6	2.1	-3.1	-1.5	0.20	-0.01	0.00	-0.14	-0.22
United States, level 1995	23.2	19.0	12.6	13.0	20.3	36.6	10.5	28.7	9.9	14.3	1.36	1.11	0.74	0.76	1.19
United States, 1985-1995	-2.7	0.9	-0.8	-0.3	-1.3	-1.3	-1.3	2.3	-0.4	0.7	-0.05	0.12	0.00	0.03	0.01
Average (18) mid-1990s	11.8	13.3	7.9	9.0	13.9	27.7	17.0	26.8	11.5	17.0	1.07	1.59	0.74	0.83	1.33
change, mid-80s to mid-90s	1.1	2.9	0.8	0.3	-1.5	-0.8	1.6	3.9	-1.2	-3.1	0.07	0.31	0.06	-0.03	-0.31

#### Table 5.4 Poverty rates, shares and relative risk indices, by age groups, mid-1980s to mid-1990s (cont.)

Notes: Poverty rate: percentage of persons living in households with incomes below 50% of median adjusted disposable income of the entire population

Relative risk index: poverty share divided by population share.

Averages are unweighted and exclude Belgium.

			Poverty	rates			Shares	in poor wo populatio	orking-age on		Re	lative risk in	ıdex		memo- randum item
	Total working-age population	Working- age with children	Total single parents	Single parents non working	Single parents, working	Working- age without children	Total working- age with children	Total single parents	Single parents, non working	Working- age with children	Total single parents	Single parents, non working	Single parents working	Working- age without children	proportion of single parents working
Australia, level 1994	8.5	9.4	26.9	42.1	9.3	7.1	66.0	19.5	16.4	1.11	3.17	4.96	1.09	0.83	46%
change, 1984-1994	-3.0	-4.0	-19.8	-37.9	2.0	0.4	-16.6	-2.6	-4.1	-0.06	-0.89	-2.00	0.46	0.26	0%
Austria, level 1993	6.1	5.5	13.2	20.8	8.9	6.9	65.5	20.6	11.7	0.90	2.17	3.41	1.46	1.13	64%
change, 1983-1993	1.6	0.9	-17.3	-41.2	-2.3	2.5	-2.7	-8.8	-10.9	-0.12	-4.60	-10.33	-1.03	0.15	2%
Belgium, level 1995	6.6	3.3	13.0	22.8	11.4	11.4	30.3	14.3	3.4	0.51	1.98	3.48	1.74	1.74	86%
change, 1983-1995															
Canada, level 1995	11.4	12.5	43.7	72.5	26.5	9.9	64.9	21.7	13.5	1.09	3.82	6.35	2.32	0.87	63%
change, 1985-1995	-0.4	-0.9	-12.7	-16.9	-9.8	0.7	-6.1	0.7	0.9	-0.04	-0.95	-1.22	-0.75	0.09	1%
Denmark, level 1994	3.8	2.6	16.2	34.2	10.0	5.3	36.6	24.9	13.5	0.68	4.25	8.95	2.62	1.38	74%
change, 1983-1994	-0.8	-1.1	-4.5	-19.1	-3.2	-0.9	-12.9	1.9	2.3	-0.12	-0.27	-2.66	-0.25	0.05	-7%
Finland, level 1995	4.4	1.9	4.5			8.0	25.4	6.2	2.9	0.43	1.01			1.82	79%
change, 1986-1995	0.2	-0.5	-2.6			1.0	-8.9	-0.5		-0.14	-0.67			0.16	-14%
France, level 1994	6.9	6.7	22.8	45.1	13.3	7.1	61.9	12.2	7.2	0.98	3.32	6.58	1.94	1.03	70%
change, 1984-1994	0.4	0.5	9.7	5.3	9.7	0.0	-2.9	5.4	1.8	0.02	1.30	0.44	1.38	-0.06	-4%
Germany, level 1994	9.4	8.4	45.1	61.8	32.5	10.4	48.1	16.8	9.9	0.90	4.79	6.57	3.46	1.11	57%
change, 1984-1994	3.8	3.4	6.9	-12.7	20.8	4.3	-1.4	3.8	-0.8	0.00	-2.02	-6.73	1.37	0.02	-1%
Greece, level 1994	10.7	11.1	24.7	36.8	16.3	10.0	62.2	3.6	2.2	1.04	2.32	3.45	1.52	0.94	59%
change, 1988-1994	-0.3	-0.2	2.9	7.2	2.1	-0.4	-4.9	-1.5	-1.2	0.01	0.33	0.76	0.23	-0.01	8%
Hungary, level 1997	7.6	9.4				5.2	70.1			1.23				0.69	
change, 1991-1997	0.8	2.4				-1.4	2.6			0.21				-0.28	

#### Table 5.5. Poverty rates, shares and relative risk indices for persons living in selected family types, mid-1980s to mid 1990s

			Poverty			-			orking-age			lative risk ir			memo- randum item
	Total working-age population	Working- age with children	Total single parents	Single parents non working	Single parents, working	Working- age without children	Total working- age with children	Total single parents	Single parents, non working	Working- age with children	Total single parents	Single parents, non working	Single parents working	Working- age without children	proportion of single parents working
Ireland, level 1994															
change, 1987-1994															
Italy, level 1993	14.1	17.0	47.7	78.7	24.9	9.6	72.7	5.0	3.5	1.21	3.39	5.60	1.77	0.69	58%
change, 1984-1993	4.7	6.7	16.5	-6.8	3.9	1.8	2.9	2.5	2.4	0.11	0.07	-3.52	-0.47	-0.15	-27%
Mexico, level 1994	21.0	23.0	27.6	31.0	27.2	7.5	97.9	3.7	0.5	1.09	1.32	1.48	1.30	0.36	89%
change, 1989-1994	0.3	-2.4	12.2	22.4	10.0	-1.4	0.2	3.3	0.4	-0.13	0.57	1.06	0.47	-0.07	10%
Netherlands, level 1995	7.0	7.6	33.0	41.3	17.0	6.3	59.0	21.1	17.4	1.08	4.71	5.90	2.43	0.90	34%
change, 1984-1995	3.6	4.6	18.5	25.4	6.9	2.2	4.3	9.2	7.5	0.21	0.46	1.22	-0.54	-0.32	9%
Norway, level 1995	5.9	3.6	14.4	29.6	4.6	9.5	37.6	20.0	16.1	0.62	2.43	5.02	0.78	1.61	61%
change, 1986-1995	1.8	0.5	-5.8	-17.8	0.0	3.8	-10.0	-7.1	-7.1	-0.14	-2.48	-6.54	-0.34	0.21	-3%
Sweden, level 1995	7.2	2.5	6.5	24.2	3.8	12.6	18.5	8.5	4.2	0.35	0.90	3.36	0.52	1.76	87%
change, 1983-1995	1.1	-0.9	-7.3	-21.5	-7.1	0.1	-13.9	-10.1	-0.9	-0.21	-1.35	-4.11	-1.26	-0.30	-5%
Turkey, level 1994	15.5	16.6	29.3	39.9	16.3	8.2	93.0	0.8	0.6	1.07	1.89	2.57	1.05	0.53	45%
change, 1987-1994	-0.7	-0.8	11.3	6.0	11.7	1.4	-2.2	0.7	0.5	0.00	0.78	0.48	0.76	0.11	-9%
United Kingdom,	11.0	14.6	45.2	65.0	22.7	5.0	82.9	36.3	27.7	1.32	4.10	5.90	2.06	0.46	47%
level 1995 change, 1985-1995	4.2	6.5	20.1	24.1	11.3	0.9	2.6	16.8	13.0	0.13	0.40	-0.13	0.38	-0.15	-7%
United States,	16.5	19.4	53.5	93.4	38.6	11.1	76.4	25.5	12.1	1.18	3.23	5.65	2.34	0.67	73%
level 1995 change, 1985-1995	-1.2	-2.2	-8.1	-0.3	-6.3	0.7	-3.1	0.6	-0.9	-0.05	-0.24	0.36	-0.20	0.09	7%
Average (15) mid-1990s change, mid-80s to mid-90s	10.3 1.0	10.7 0.7	30.0 1.5	47.8 -5.6	18.1 3.3	8.4 1.1	62.9 -4.5	16.0 1.0	10.4 0.2	0.97 -0.03	3.05 -0.59	5.05 -2.19	1.78 0.01	0.95 -0.01	62% -2%

Table 5.5. Poverty rates, shares and relative risk indices for persons living in selected family types, mid-1980s to mid-1990s (cont.)

*Notes:* Poverty rate: percentage of persons living in households with incomes below 50% of median adjusted disposable income of the entire population. Relative risk index: poverty share divided by population share. Averages are unweighted and exclude Belgium, Finland and Hungary

#### Table 5.6. Poverty rates, shares and relative risk indices, by work attachment

	1	poverty rate	e	share in	n poor pop	ulation	relat	ive risk in	dex
	No workers	One worker	Two workers	No workers	One worker	Two workers	No workers	One worker	Two workers
Australia, 1994	28.6	7.9	3.8	46.2	28.9	24.9	3.38	0.93	0.45
change 1984-1994	-25.9	0.6	-0.5	-10.9	5.3	5.6	-1.38	0.29	0.07
Austria, 1993	19.8	8.8	0.7	38.2	56.0	5.7	3.39	1.51	0.11
change 1983-1993	-5.8	5.9	-0.3	-22.1	25.7	-3.6	-2.28	0.86	-0.11
Belgium, 1995	18.0	7.9	0.6	35.7	60.8	3.5	2.75	1.21	0.10
change 1983-1995									
Canada, 1995	61.4	17.3	3.4	40.4	39.7	19.8	5.37	1.51	0.30
change 1985-1995	-9.0	-0.7	-0.7	6.9	-3.9	-3.0	-0.59	-0.01	-0.05
Denmark, 1994	16.0	8.6	0.6	32.6	56.5	10.9	4.20	2.24	0.16
change 1983-1994	-12.8	-0.7	-0.4	-0.5	5.5	-5.0	-2.07	0.23	-0.07
Finland, 1995	21.0	8.4	1.7	32.9	39.8	27.2	4.76	1.91	0.38
change 1986-1995	5.6	-2.6	-0.1	22.5	-18.8	-3.7	1.09	-0.72	-0.04
France, 1994	25.9	7.5	2.0	44.1	41.6	14.4	3.78	1.09	0.29
change 1984-1994	2.2	2.0	-1.6	5.7	6.1	-11.7	0.13	0.24	-0.26
Germany, 1994	44.4	8.1	0.7	54.7	42.3	3.0	4.74	0.86	0.08
change 1984-1994	14.8	4.2	-1.0	0.9	9.3	-10.2	-0.58	0.17	-0.24
Greece, 1994	20.8	14.1	4.4	18.8	63.8	17.3	1.95	1.32	0.41
change 1988-1994	-2.2	0.6	1.4	-4.1	-3.9	8.0	-0.14	0.09	0.14
Hungary, 1997									
change 1991-1997									
Ireland, 1994									
change 1987-1994									
Italy, 1993	42.9	17.1	4.5	30.5	55.1	14.4	3.05	1.22	0.32
change 1984-1993	3.6	4.1	2.8	8.2	-14.3	6.2	-1.14	-0.17	0.14
Mexico, 1994	35.6	25.8	16.0	5.7	57.8	36.5	1.67	1.21	0.75
change 1989-1994	14.1	-2.4	0.8	3.1	-8.5	5.3	0.70	-0.07	0.06
Netherlands, 1995	27.0	7.6	1.0	54.4	38.5	7.1	3.86	1.08	0.14
change 1984-1995	14.7	4.2	0.3	9.5	-9.0	-0.5	0.25	0.09	-0.05
Norway, 1995	38.3	4.4	0.1	72.9	26.0	1.2	6.45	0.74	0.02
change 1986-1995	-5.9	1.2	0.1	2.9	-3.2	0.3	-4.31	-0.03	0.01
Sweden, 1995	25.8	12.7	0.8	28.8	64.8	6.4	3.58	1.76	0.12
change 1983-1995	-22.9	0.7	-0.1	-2.4	3.4	-1.0	-3.12	0.11	-0.01
Turkey, 1994	30.2	16.7	13.4	8.7	43.6	47.7	1.95	1.08	0.87
change 1987-1994	4.7	1.6	-0.3	4.2	-5.4	4.3	0.37	-5.72	1.18
United Kingdom, 1995	36.9	15.2	2.6	44.9	41.8	13.3	3.35	1.38	0.24
change 1985-1995	4.4	9.0	1.5	-16.3	11.9	4.4	-1.45	0.47	0.07
United States, 1995	74.5	26.9	6.0	27.9	49.1	23.0	4.51	1.63	0.36
change 1985-1995	0.7	1.2	-1.6	-0.3	3.8	-3.5	0.34	0.18	-0.07
Average16, mid-1990s	35.7	13.0	3.4	38.2	46.1	15.7	3.90	1.35	0.29
change mid-80s to mid-90s	0.1	1.4	-0.3	2.3	-0.2	-2.1	-0.73	0.10	-0.04

Working-age population Equivalence scale elasticity = 0.5

*Notes* : Poverty rate: percentage of persons living in households with incomes below 50% of median adjusted

disposal income of the entire population

Relative risk index: poverty share divided by population share.

Two workers refer to two and more workers. Averages are unweighted and exclude Belgium, Finland and Hungary.

#### Synthesis table 1: Trends in income distribution since 1970 - results from national studies

Country	Study	Main trend in inequality	Driving factors
Australia	Saunders (1994) Gottschalk and Smeeding (1997) Borland and Wilkins (1996)	Larger increase in income inequality in the 1980s	Rise in inequality of earnings for both men and women
	Harding (1997)	No significant change in disposable income inequality between 1982 and 1994: higher degree of inequality in market income offset by changes in income tax and cash transfer system.	<ul> <li>Offsetting effect explained by :</li> <li>tighter targeting of cash transfers allied with increases of payments;</li> <li>new programmes (family payments, Jobs, Education and Training Scheme for sole parents);</li> <li>increased progression of income tax.</li> </ul>
			Aged households moved up the income spectrum, un- employed and single person households moved down.
Austria	Guger (1987; 1996; 2000) BMAGS (1998)	<ul> <li>Stability in the 1970s</li> <li>From 1983 to 1991 income distribution widened for both net and gross household.</li> <li>In the early 1990s, income inequality continued to rise, especially among white-collar workers and public employees, whilst it decreased among blue-collar workers.</li> <li>Between early and mid-1990s, broad stability</li> </ul>	<ul> <li>Change in primary income distribution mainly caused by the increase in unemployment at the lower end of the income ladder, and by rising women's labour force participation in the upper part.</li> <li>Public transfers had strong equalising effect (esp. unemployment benefits, social assistance, housing allowances and maternity allowances), while taxes did not.</li> </ul>
Belgium	Atkinson <i>et al.</i> (1997) Huster (1996) Cantillon <i>et al.</i> (1994) Gottschalk and Smeeding (1995) Gevers and van Kerm (1998)	<ul> <li>During 1970s, inequality first rose and then fell to a level close to that of mid-1960s.</li> <li>During the 1980s, more modest increase in disposable income inequality, esp. 1985 to 1992.</li> <li>In the early 1990s, upward trend might have been steeper.</li> </ul>	

Canada	StatCan (1997), Blackburn and	1975 – 1995: Broad stability in the distribution of	While market income became more unequal, at least
	Bloom (1991), Mc-Watters and	incomes; Gini coefficient for family incomes	since mid-1980s, this was more than offset by public
	Beach (1989), Gottschalk and Smeeding (1995), Hatfield(1996).	somewhat declined, with most of the decline occurring 1975-1985.	income transfers and more progressive taxes.
	Johnson (1995) Erksoy (1994)	Significant cyclical behaviour of income distribution.	One third of increase in market income inequality 1975 -1994 attributed to unemployment.
	Zyblock (1996)		Also, declining fertility and rise in lone-parent families led to increases in market income inequality.
			All income groups affected by common factors, such as technological change or globalisation.
Czech Republic	Vecernik (1996a) Atkinson and Micklewright(1992) UNICEF (1995)	<ul> <li>During the 1970s and until 1985, moderate but steady decline in income disparities</li> <li>Between 1985 and 1989, broad stability;</li> </ul>	During the whole period, importance of "demographic" determinants of income distribution (age of household head, number of earners) diminished, while that of
	Vecernik (1996b) Vecernik (1998)	– Between 1988 and 1996, income inequality increased considerably, largely reflecting	personal socio-economic characteristics (mainly education) strengthened significantly.
	Garner <i>et al.</i> (1998)	widening in the earnings distribution; main bulk	Changes in the wage earnings component identified as
		of the increase happened in more recent period (1992 –1996), mostly produced by the fast advance of the top decile.	the main contributor in 1989-93, whilst changes in taxes and in particular public transfers mitigated this effect.
Denmark	Pedersen and Smith (1997)	Trend to levelling of incomes in the 1970s, ended	Dramatic increase in unemployment in the late
Deninark	redersen und omnur (1997)	in the mid-1980s. Since then, income distribution seemed to remain broadly stable	1980s/early 1990s did not have a direct impact on the distribution of both gross and disposable incomes.
	Aaberge et al. (1997)	Between 1986 and 1990,	distribution of both gross and disposable incomes.
	Aaberge $et al.$ (1997) Aaberge $et al.$ (1996)	<ul> <li>rather steep increase in the Gini coefficient of</li> </ul>	Increase in the contribution of earnings to income
	Gottschalk and Smeeding (1997)	annual disposable incomes among individuals;	inequality
		- smoother increase in the Gini coefficient for	
		the adult working-age population;	
	Danish Ministry of Finance (1997).	Estimates for population aged 18 and over indicate broad stability in the 1980s, and a slight	
<b>T</b> ' - 1 1		decrease in the early 1990s.	
Finland	Usilato (1989) Usilato (1999)	<ul> <li>1970s to mid-1980s: large decline in income inequality, at a slower path towards the end;</li> </ul>	
	Gottschalk and Smeeding (1997)	<ul> <li>During late 1980s, the distribution of dis-</li> </ul>	– Rise in factor income inequality caused by
	Atkinson <i>et al.</i> (1995) Aaberge <i>et al.</i> (1997)	posable income remained broadly unchanged, whereas the distribution of factor income became	increase in the share of elderly and non-working population;
		more unequal;	

		<ul> <li>During recession (1990-1993), distribution of disposable income remained broadly stable;</li> <li>After recession, increase in inequality; by 1996, distribution of disposable income roughly equivalent to the one in the mid-1970s.</li> </ul>	<ul> <li>Increased re-distributive effect of public income transfers (more than taxes); contribution of earnings to inequality fell due to declining shares of earnings in income, whereas shares of capital increased;</li> <li>After recession, impact of both direct taxes and public income transfers declined.</li> </ul>
France	INSEE (1996) INSEE (1997) Atkinson et al. (1997)	<ul> <li>U-shaped pattern over the past 20 years: inequality slightly falling to the mid-1980s, remaining stable until the 1990s and slightly rising in the first half of the 1990s.</li> <li>Distribution of pre-tax incomes narrowed during late 1970s into early 1980s;</li> <li>Between 1984 and 1989, broad stability accompanied by gains in income shares going to both the top and the bottom deciles;</li> <li>In early 1990s, moderate increase in overall income inequality;</li> <li>Broad stability in 1994 and 1995, and certain increase in 1996.</li> </ul>	Late 1970s/1980s: decrease in inequality mainly concerned elderly, whereas there was no change among working-age population. This latter stability hides two off-setting trends: decrease in inequality among wage-earners (due to movements in the minimum wage level), coupled with increase in inequality due to unemployment growth.
Germany	Guger (1989) Becker (1997) Hertel (1997)	<ul> <li>Slight trend towards greater equality during the 1970s;</li> <li>between late 1970s and late 1980s, inequality of disposable income increased steadily but slightly, so that inequality in 1988 reached a similar level than in the late 1960s.</li> </ul>	<ul> <li>rising share of wages in disposable income together with narrowing in wage differentials;</li> <li>result of conflicting trends: equalising effect of increase in multiple-earner households has greatly offset increases in inequality caused by other demographic changes (decrease of household size and elderly labour force participation) as well as by increased wage dispersion and reduced re-distributive activities of the state;</li> </ul>
	Schwarze (1996) Hauser (1997)	<ul> <li>between the late 1980s and the mid-1990s, income inequality continued to increase;</li> <li>Since reunification, income inequality increased faster in the Eastern part than in the Western part; the level, however, remained lower in the former</li> </ul>	<ul> <li>increases appear stronger when using household size adjusted indicators</li> <li>Importance of between-state differences in overall inequality decreased substantially; migration from East to West reduced overall inequality;</li> <li>Lower inequality level in Eastern part explained by government programmes (temporary minimum transfer</li> </ul>

			payments for unemployed and pensioners) and labour market behaviour (higher participation of women).
Greece	Tsakloglou (1993) Tsakloglou (1997)	Significant decrease in inequality from 1974 to 1982, followed by a moderate rise from 1982 to 1988. About two thirds of the decline in the first sub-period took place between November 1981 and October 1982, possibly reflecting a number of policy measures introduced. Inequality might have further risen in the early 1990s.	In both periods, within-group inequality remained more important for aggregate inequality than between-group effects (groups defined across regions, occupations, educational attainment and demographic characteristics).
Hungary	Spéder (1996) Atkinson and Micklewright(1992) Förster and Tóth (1998) Vukovich and Harcsa (1999)	<ul> <li>During 1970s: substantial decline in income inequality</li> <li>Increase during the 1980s, esp. later 1980s;</li> <li>Sharp increase between 1990 and 1994;</li> <li>Smoothing of disparities towards 1996/97</li> </ul>	<ul> <li>Some "hallowing out" of middle incomes during early/mid-1990s</li> </ul>
Ireland	Gottschalk and Smeeding (1995) Nolan and Hughes (1997) Callan and Nolan (1998) Barret, Callan and Nolan (1997)	<ul> <li>During 1970s, distribution of household incomes remained broadly stable;</li> <li>From 1980 to 1987, modest decline for disposable income inequality, despite gross income (especially gross earnings) becoming increasingly unevenly distributed; pronounced increase at the top of the distribution;</li> <li>From 1987 to 1994, stable shape of the distribution of disposable income (adjusted and unadjusted), also more stable distribution of gross incomes than in the earlier period.</li> </ul>	<ul> <li>despite high level of centralised wage bargaining and labour market regulation, increased returns to higher education accounted for the substantial part of increase in earnings distribution;</li> <li>effects of direct taxation offset this effect on disposable income inequality</li> <li>no major impact of the substantial increase in labour force participation of married women on the household income distribution.</li> </ul>
Italy	Brandolini and Sestito (1994 <i>b</i> ) Brandolini and Sestito (1994 <i>a</i> ) Birindelli <i>et al.</i> (1996) Baldini (1996)	<ul> <li>from 1977 to 1983, strong reduction of inequality reflected by gains in the six bottom deciles at the expense of the top one;</li> <li>from 1983 to 1987, six bottom deciles loose half of the previous gain to the top decile;</li> <li>from 1987 to 1991, "recovery", with a new reduction of inequality, showing largest income gains accruing to the intermediate deciles;</li> <li>from 1991 to 1995, sharp rise in inequality, esp. in 1993.</li> </ul>	<ul> <li>From 1977 to 1991, most of decline in inequality attributed to "within" rather than "between" group changes;</li> <li>Sharp rise in 1993, in addition to methodological changes, explained by two factors: i) most of increase driven by higher dispersion among working-age families with employed or self-employed head, ii) increase reflected both widening dispersion across all income components, and a greater correlation between them.</li> </ul>
		107	

	Atkinson et al. (1997)	Confirm trends of the first two sub-periods, but	inequality appears to have risen in periods of faster
<b>x</b>		did not find recovery in late 1980s	economic growth and fallen in recessions.
Japan	Gottschalk and Smeeding (1997)	- Over past 30 years, slight increase in family	
		income inequality, concentrated in period from	
		around 1985 to 1995; no linear trend, periods of	
		increases (early 1970s, early 1980s, late 1980s)	
	F 1 : (100c)	were followed by slight decreases.	
	Fukui (1996)	- Increase in inequality for primary and	
		disposable household incomes in 1980s, broad	
		stability from 1990 to 1993.	
Korea	Daemo Kim (1987)	- Broad stability of distribution during the	
	Park Chanyong (1992)	1970s;	
		- trend to increases in the 1980s, especially	
		early and late 1980s	
Luxembourg	Hausman (1997).	Income inequalities increased moderately	
		between 1985 and 1994	
Mexico	IBD (1998)	Income inequality worsened in the 1980s but was	
NT (1 1 1	CDC (1007)	halted in the 1990s (IBD, 1998).	
Netherlands	CBS (1997)	Over the past three decades, distribution of	Reflects changes in family structure, especially the
	WRR (1996)	household incomes widened slightly.	increase in the number of one-person households
		– During 1970s, household income inequalities	- increase of relative incomes of those not part of
		diminished continuously;	the labour force, but earnings inequality diminished
		- from 1977 to 1985, overall income inequality	- two effects cancelled each other out: above-
		remained broadly stable, although real disposable	average decline of average real non-pension transfers
		income declined during the same period	which enhanced inequality, and a less than average decline in disposable income of pensioners;
		– from 1985 to 1990, income inequality	- average income of workers, pensioners and
		increased,	disabled increased whilst other persons on transfer
		indioused,	income faced a decline; overall, the income position of
			the elderly improved relative to those of working;
		– in the first part of the 1990s, overall income	and enderly improved relative to alose of working,
		inequality changed little.	
	Dessens (1996)	moquant, changed intic.	- In the last two decades, no effects of increased
			female labour force participation and growth in two-
			earner households on the household income
			distribution

New Zealand	Gottschalk and Smeeding (1995) Waldgrave (1998) Saunders (1994) Mowbray (1993) Bakker and Creedy (1998)	<ul> <li>Broad stability during first half of the 1980s;</li> <li>Upward trend in income inequality in the second half of the 1980s</li> <li>Continuation of this trend in the early 1990s</li> </ul>	<ul> <li>Increase mainly caused by moves at the top of the income distribution;</li> <li>bottom of the income distribution started to lose ground</li> <li>For the period 1985-1994, for men, the development of the unemployment rate had a stronger influence on the form of the income distribution than GDP growth.</li> </ul>
Norway	Epland (1992) Aaberge <i>et al</i> (1996) Epland (1997) Aaberge <i>et al.</i> (1997)	<ul> <li>In the early 1980s, income inequality declined;</li> <li>Between 1986 and 1995, income inequality increased.</li> </ul>	<ul> <li>greater changes occurring at the top of the distribution, reflecting greater concentration of property income among higher income groups;</li> <li>increasing contribution of earnings for late 1980s, whereas substantive rise in inequality in 1993/1994 mainly accounted for by capital income. Very little rise in the equalising impact of unemployment benefits during the whole period, whilst tax-free transfers became more important equalisers.</li> </ul>
	Bojer (1995) Strøm, Wennemo and Aarberge	Distribution of pre-tax incomes for individual adults narrowed between 1982 and 1990 Minor changes in distribution of post-tax incomes	Reflectseffectsofincreasedlabour-marketparticipation and higher incomes of women.Within-groupdistributionremainedstableforsingle
Poland	(1993) Atkinson and Micklewright (1992) Milanovic (1997)	between 1970 and 1990 Income differentials declined in the 1970s, widened moderately in the 1980s, and sharply after 1989.	persons, married couples with and without children. Transfers contributed to increase in inequality between 1989 and 1995, in particular pensions through their rising concentration and their rising share in incomes.
Portugal	Rodrigues (1993) Gouveia and Tavares (1995) Cardoso (1998)	<ul> <li>Between 1980 and 1990, modest but significant decrease of inequality in distribution of disposable household income.</li> <li>Between 1983 and 1992, significant increase in earnings dispersion driven by growing inequality at the top</li> </ul>	Proportion of the <i>level</i> of inequality attributable to "between-group" effects rather negligible for regional and demographic factors, but sizeable for educational and occupational factors; <i>changes</i> in distribution mainly due to declines in inequality "within" than "between" groups (for all sub-groups)

	Gouveia and Tavares (1995)		Decline may have resulted from evolution of wages.
	Rodrigues (1994)		Wages and returns to capital had a non-equalising
			impact, more than off-set by an equalising impact of direct taxes, pensions and self-employment income.
Spain	Estruch (1995)	Between 1980 and 1990, significant decrease of	High re-distributive effects of social transfers during
	Estruch (1996)	disposable income inequality despite rise in	the 1980s.
	Zaidi and de Vos (1998)	inequality measured by primary income; the	Substantive increase in total in-kind social
		distribution of "final income" (including in-kind	expenditures lead to a horizontal rather than vertical
		social transfers) remained broadly stable.	redistribution.
Sweden	Jansson 1996	– Rapid decline in inequality throughout 1970s;	
	Atkinson et al. 1995	<ul> <li>slight increase from early to late 1980s;</li> </ul>	
	Ministry of Finance 1996, 1999	– significant increase in early 1990s, resulting	
	Aaberge et al. 1997	in levels similar to 1970;	
		– stability in late 1990s.	
	Gustaffson and Palmer 1996		- Distribution changes between 1975 and 1991 not
			unemployment related, but reflect changed dispersion
			of earnings and effects of tax/transfers;
	Aabeerge et al 1997		- increase in contribution of earnings between 1989
	Ministry of Finance 1996		and 1993, counteracted by unemployment benefits and tax-free transfers;
			- increase in early 1990s caused by wage dispersion,
			increased pensions and higher capital incomes.
Switzerland	Leu et al. (1997)	Between 1982 and 1992, income disparities	
		increased moderately but unambiguously; the	
		shares of the two bottom quintiles decreased at	
		the expense of the only top decile.	
United	Atkinson (1997)	- during early to late 1970s, inequality fell	
Kingdom	Atkinson (1995)	slightly but continuously;	
	Smeeding and Gottschalk, (1995)	<ul> <li>in the early 1980s, inequality started rising;</li> </ul>	
	Gottschalk and Smeeding, (1997)	- from mid-1980s to 1991, a sharp increase	
	Jäntti (1996)	occurred;	
		– during the first half of the 1990s, inequality	
		first stabilised at this high level, and has slightly	
		decreased since 1995/96	

	Atkinson (1993)		During 1970s and early 1980s, shift from work accounted for half of the observed rise in inequality, the remaining half being attributable to increased income dispersion within workers/non-workers
	Jenkins (1995)	<ul> <li>In general, impact of wage inequality on income distribution fell during the 1970s and 1980s, reflecting declining importance of wages.</li> </ul>	<ul> <li>during 1970s, fall in wage inequality, sufficiently large to offset a small disequalising impact of rising married women's labour force participation.</li> <li>during early 1980s, half of the increase in aggregate inequality explained by higher dispersions among working households, the other half explained by the rising number of non-working households and increased income disparity between those two</li> <li>from mid-1980s to 1991, sharp increase in inequality mostly caused by increased dispersion among households with middle-aged heads and non-working households with older heads</li> </ul>
	Giles et al. (1998)		<ul> <li>during mid-1980s to 1991, levels of overall inequality accounted for by of gross earnings rather than self-employment income, unearned income, or transfers; contribution of earnings was growing.</li> </ul>
United States	US Bureau of the Census (1996) Council of Economic Advisers (1997)	<ul> <li>After a period of stability, income inequality started to increase in 1974;</li> <li>the distribution of income widened continuously from mid-1970s until 1994; the rise in inequality was especially sharp in the early 1980s and between 1992 and 1994; income shares of the bottom three quintiles dropped, while the share of the top quintile, and esp. top 5 percent, rose during the past two decades;</li> <li>since 1995, a slight decline occurred.</li> </ul>	<ul> <li>Inequality rose both between groups and within groups.</li> <li>Over the period 1975 to 1995, approximately half of the increase in inequality of household incomes was due to a trend increase in male earnings inequality. Changes in household composition also contributed to the increase, reflecting the higher proportion of households headed by women.</li> </ul>

Lerman (1996)	increase in child income inequality between 1971	increase in single-parent families accounted for almost
	and 1989	half of the increase in child income inequality
Cole and Towe (1996)	trend increase in income inequality began in 1976	Inequality tended to widen during recessions; steep
		age-earnings profile and increased shares of femal
		-headed and middle-aged households contributed t
		increased inequality.
Wilkie (1996)		- From a long-term perspective (1948 throug
		1992), family income inequality is strongly linked
		regional income inequality and to the proportion
		families headed by unmarried individuals
Daly and Valletta (2000)	- rising inequality in adjusted family income	- up to 75 % of inequality growth due to risir
•	between 1969 and 1989;	dispersion in male earnings, and up to 50 % due to
		decline in traditional family structures; off-settir
		effect of increasing female labour force participation
	- rate of inequality growth slowed between	- explanatory factors continued to have substanti
	1989 and 1998	effects

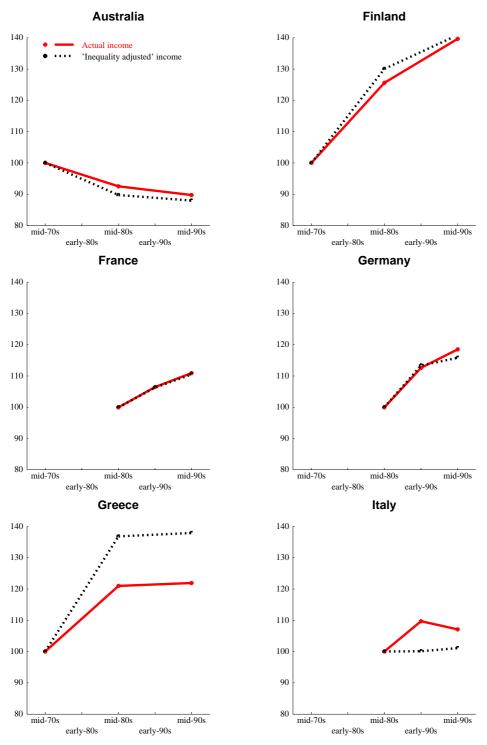
# Synthesis table 2: Trends in income poverty since 1970 - results from national studies

Country	Study	Main trend in poverty	Groups at risk and factors
Australia	King (1997) Saunders (1991) Saunders (1997)	<ul> <li>1970s: relative poverty rates for households slightly falling but rates for individuals slightly growing.</li> <li>1980s: significant upward trend in poverty, including worsening child poverty, until the second half of the 1980s.</li> <li>first half of 1990s: poverty slightly increased</li> </ul>	Poverty among aged persons continuously declined during past decades, and child poverty seems to have moderated (especially during early 1980s). Non-aged single people and sole parent families continue to face the highest poverty risk. Some of the recent trends were explained in terms of unemployment effects having been offset by social security increases.
Austria	Steiner and Wolf (1996) Lutz <i>et al.</i> (1993) BMAGS (1997) BMAGS (1998)	<ul> <li>No change in the 1980s.</li> <li>Relative Income poverty might have increased in the years up to 1995</li> <li>Non-monetary deprivation experienced by ca. half the population below the income poverty line, and about one quarter of the poor had incomes below one third of the poverty threshold.</li> </ul>	Single parents, farmers, large households, unemployed and immigrant households. Due to substantive increases in minimum pensions, relative income position of pensioners improved in recent decades, although high poverty risk remained for pensioner households if the head was an unskilled worker, farmer or small tradesman before retiring.
Belgium	Cantillon <i>et al.</i> (1994) Atkinson <i>et al.</i> (1997) Gevers and van Kerm (1998) Delhausse and Perelman (1998)	<ul> <li>Broadly unchanged incidence of relative poverty between 1985 and 1992.</li> <li>Recently, poverty incidence might have increased.</li> </ul>	Stability in 1980s outcome of a balance of conflicting trends: macro-economic situation and rise in single parent families on the one hand, and fall in number of large families and rise of female labour force participation on the other. Above-average poverty risk for single parents and single elderly persons. In 1994, strong regional differences, with young households of being in risk of poverty in the South,
Canada	Beach and Slotsve (1996) Statistics Canada (1999) Myles and Picot (1999)	<ul> <li>In 1980s and early 1990s, low-income rates remained stable, indicating increasing effect-iveness of the Canadian tax and transfer system.</li> <li>In 1995/96, low-income rates increased, despite continuing economic growth.</li> </ul>	<ul> <li>and elderly households in the North.</li> <li>During 1980s/early 1990s, proportion of children in the poor population increased slightly, whereas the share of poor elderly persons declined substantially.</li> <li>Lower income families had not benefited proportionally from rising earnings since 1993 while transfer shares in total income declined.</li> </ul>
Czech Republic	Milanovic (1995) Vecernik (1996 <i>a</i> )	- Between 1988 and 1993, relative poverty for both households and persons did not increase	Pensioners, on average, moved up the income ladder whilst poverty risk for children increased.

	Vecernik (1998)	significantly.	
Denmark Finland	Eurostat 1994 Eurostat 1997 Hansen 1995 Pedersen and Smith (1998) Jäntti <i>et al.</i> (1996)	<ul> <li>During the 1980s, and until 1995, relative poverty remained at a low level.</li> <li>Relative poverty declined during 1970s, and remained stable between 1980s and 1995,</li> </ul>	Strong decline in low-income risk for people over 50 and especially over 65; increasing risk for young people and, to a lesser degree, families with children. Low-income risk for people without unemployment was declining, but doubled for longer-term unemployed. Traditional cycle of poverty, where the elderly had a greater risk of poverty, disappeared and income
France	INSEE (1996)	including recession period; slight increase since Between 1984 and 1994, poverty rates remained stable.	differences between the elderly diminished. Poverty rates of youth doubled, and those of the elderly fell by half. Between one third and half of all poor are likely to exit income poverty in a single year, for the period 1987/88 to 1993/94.
Germany	Becker (1998) Becker (1997) Hauser (1997)	<ul> <li>relative stability in the 1970s,</li> <li>steady increase in the 1980s and early 1990s,</li> <li>by 1993, percentage of persons below 50 % of median income reached similar level as in 1960s</li> <li>In the new Länder, relative overall poverty increased much faster between 1990 and 1995, but increase would have been sharper in the case of a structural change without reunification.</li> </ul>	Poverty rates of elderly halved, whereas poverty rates of single parents doubled. Relative poverty among youth and children increased slightly between 1990 and 1995 In the new Länder, relative poverty among the elderly remained far below average but strong increase for the youth and children.
Greece	Tsakloglou (1990), Tsakloglou and Panopoulou (1998) Cantillon (1997)	Relative poverty declined substantially in the 1970s and early 1980s; modest changes in the 1980s Poverty rates remained stable throughout 1980s	High poverty risk for members of rural households, persons with low education and older people living alone or with spouses. Importance of latter group rose. Higher risk for elderly did not decrease
Hungary	Förster, Szívósz and Tóth (1999), Spéder (1998)	Poverty rates based on constant threshold increased sharply in the early to the mid 1990s, relative rates increased slightly.	highest risk of permanent poverty for those living in rural areas; having low education; non-employment; and having many children.
Ireland	Callan and Nolan (1998)	<ul> <li>Poverty remained broadly stable between 1980 and 1994, according to relative and deprivation.</li> <li>Poverty lines constant in real terms point to an increase of income poverty from 1980 to 1987 and a substantial fall from 1987 to 1994.</li> </ul>	From 1980 to1987, poverty among retirees dropped substantially, whereas the working-age population and children recorded an increase, mainly due to the development of unemployment. From 1987 to 1994, this trend has slightly reversed.

Italy	Cannari and Franco (1997)	- Continuous increase over the 1980s;	Poverty incidence by age did not follow a "u-shaped" form
	Atkinson et al. (1997	– Decline in early 1990s, subsequent raise	but was continuously declining with age, and increasing with the number of children.
Netherlands	Engbersen <i>et al</i> . (1996).	<ul> <li>From 1977 to 1985, income poverty on the basis of constant thresholds increased substantially;</li> <li>Thereafter and until 1994, decrease.</li> </ul>	From 1985 to 1994, poverty risk of workers and pensioners diminished, while the freezing of unem- ployment and social assistance led to relative increases in poverty of households dependent on these programmes.
New Zealand	Easton (1995) Stephens <i>et al.</i> (1995)	Throughout 1980s, income poverty remained broadly stable, but substantial increase in the early 1990s	Poverty incidence dropped for single adults but increased for lone parents with a jump in 1991. Throughout the period, poverty risk for Māori and Pacific Islanders remained above average.
Poland	Milanovic (1997) Szulc (1996) World Bank (1995)	Between the late 1980s and the mid-1990s relative and absolute poverty rates increased sharply	Almost all the increase of the poverty headcount in the period 1989-92 was due to declines in real incomes whereas after that, increasingly unequal distribution of incomes started to add to poverty. Unemployment was mostly responsible for poverty in the richer regions in the mid-1990s, but less so in the poorer regions. Poverty risk was inversely correlated with age, and the youngest children faced the highest poverty risks.
Portugal	Cantillon (1999) Eurostat (1997)	Decline in relative poverty during the 1980s	Above risk for large families
Spain	Zaidi and de Vos (1998) Stapf (1996)	Between 1980 and 1990, significant decrease in relative income poverty, measured by both headcount and gap measures.	During first half of 1980s poverty rates for elderly de- creased by 20 % whilst rates for the young increased by 10 %. Single elderly women face by far the highest risk.
Sweden	Ministry of Finance (1999)	<ul> <li>Since 1978, proportion of households in relative poverty has been increasing significantly.</li> <li>Number of long-term poor remained essentially unchanged between the 1980s and the 1990s</li> </ul>	Groups at high risk of long-term poverty: youth, single adults without children, immigrants and people living in large cities.
Switzerland	Leu et al. (1997)	Increased relative but unchanged absolute poverty over period 1982 to 1992	Health reform 1996 had no consequent deterioration in poverty levels and poverty gaps
United Kingdom	Bradshaw and Chen (1996) Goodman and Webb (1994) Atkinson et al. (1997) Gregg et al (1999)	<ul> <li>Slight decrease during the 1970s,</li> <li>In the 1980s, relative poverty rates increased sharply, with the main bulk of the increase in the mid-1980s to 1991.</li> </ul>	Overall Rise partly explained by the decline in benefit levels relative to mean incomes. Marked increase in child poverty over the past 30 years; employment position is critical as half of poor children live in workless households

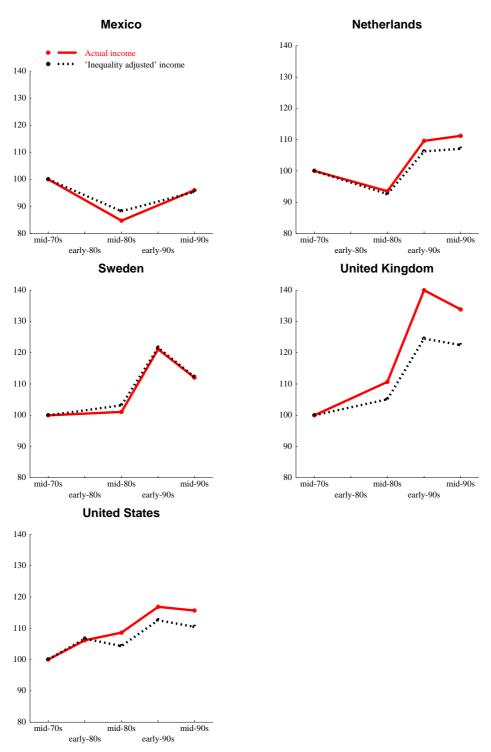
United	Council of Economic Advisers	Throughout 19005 and early 1970s, official	During the 1970s and 1980s, poverty became more
States	(1997)	poverty rate fell substantially to about half its	persistent.
	Neill (1997)	level	Over the past 25 years, change in the composition of the
	Gottschalk and Smeeding	– From 1974 the this rate started to rise again.	impoverished population: transfer system was more
	(1995)	– During the early 1980s into the early 1990s	effective at reducing poverty among the elderly (from
	US Bureau of the Census	strong increase in inequality with slow growth in	double to below average between 1967 and 1995), but
	(1996)	mean income resulted in an increase in poverty	child poverty rates continue to be above average, and have
	Blank (1997)	rates; rate has remained at a high level since.	tended to rise.
	Rodgers and Rodgers (1992)	, ,	



#### Figure 2.1 Trends in actual and 'inequality adjusted' real mean incomes

Note: 'Distributionally adjusted income' is defined as real income weighted by (1-Gini coefficient). Source: OECD questionnaire (1999).

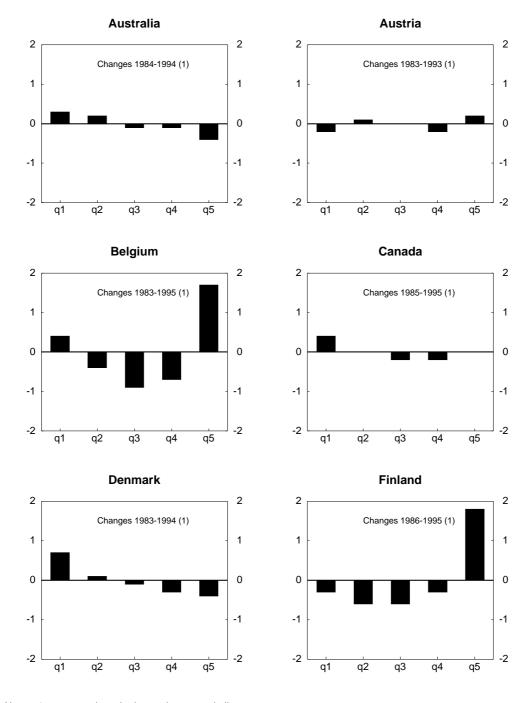
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#### Figure 2.1 (cont.) Trends in actual and 'inequality adjusted' real mean incomes

Note: 'Distributionally adjusted income' is defined as real income weighted by (1-Gini coefficient). Source: OECD questionnaire (1999).

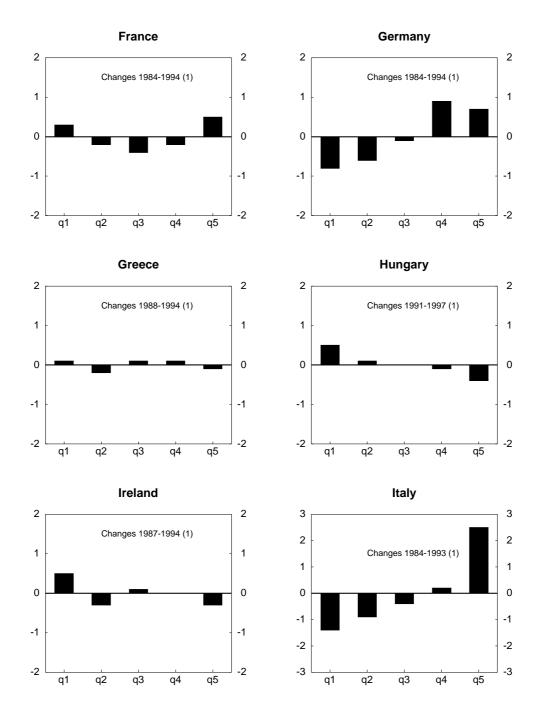
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# Figure 2.2 Gains and losses by disposable income quintiles, entire population Mid 1980s to mid 1990s

Note: q1 corresponds to the lowest income quintile.
Percentage point change.
Source: OECD questionnaire (1999), except for Japan (first-wave results of questionnaire published in OECD) (1999).

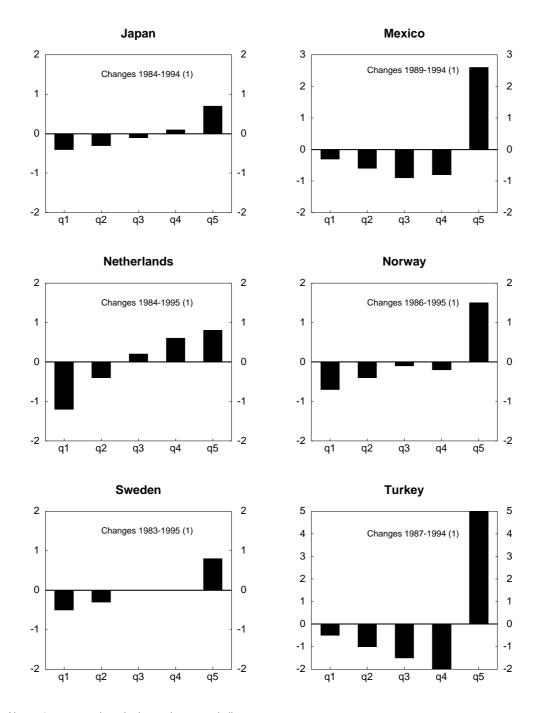
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# Figure 2.2(cont.) Gains and losses by disposable income quintiles, entire population Mid 1980s to mid 1990s

Note: q1 corresponds to the lowest income quintile.
Percentage point change.
Source: OECD questionnaire (1999), except for Japan (first-wave results of questionnaire, published in OECD) (1999).

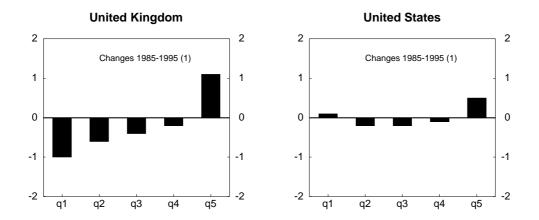
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# Figure 2.2(cont.) Gains and losses by disposable income quintiles, entire population Mid 1980s to mid 1990s

Note: q1 corresponds to the lowest income quintile.
Percentage point change.
Source: OECD questionnaire (1999), except for Japan (first-wave results of questionnaire, published in OECD) (1999).

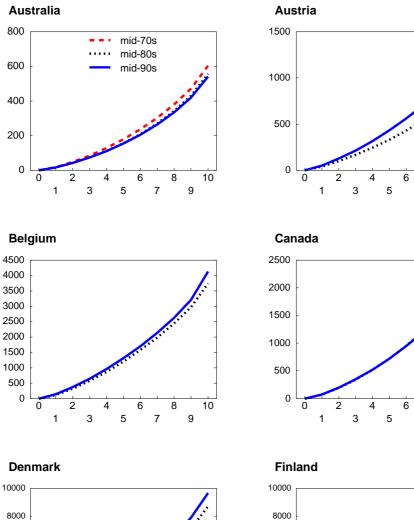
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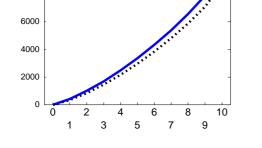
# Figure 2.2(cont.) Gains and losses by disposable income quintiles, entire population Mid 1980s to mid 1990s

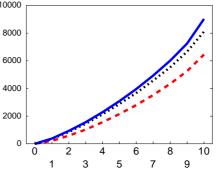
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Percentage point change.
Source: OECD questionnaire (1999), except for Japan (first-wave results of questionnaire, published in OECD) (1999).

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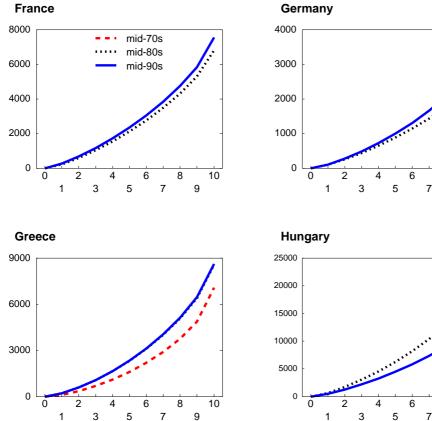
#### Figure 2.3 Generalised Lorenz curves for real disposable income, entire population Mid 1970s to mid 1990s

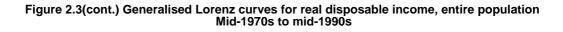


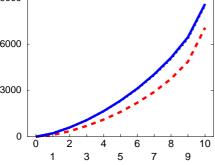


# Source: OECD questionnaire (1999), except for Japan (first-wave results of questionnaire, published in OECD (1999).

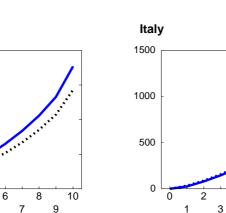
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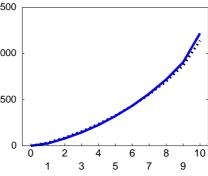






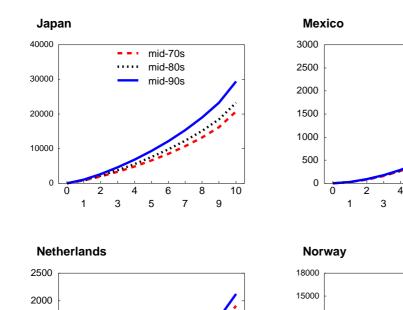
Ireland



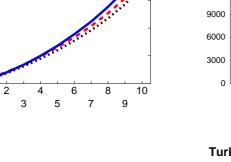


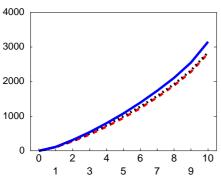
# Source: OECD questionnaire (1999), except for Japan (first-wave results of questionnaire, published in OECD (1999).

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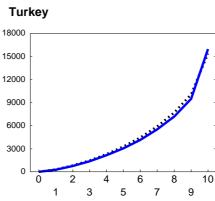
#### Figure 2.3(cont.) Generalised Lorenz curves for real disposable income, entire population Mid-1970s to mid-1990s





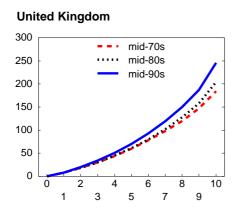
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Sweden



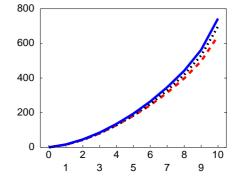
# Source: OECD questionnaire (1999), except for Japan (first-wave results of questionnaire, published in OECD (1999).

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#### Figure 2.3(cont.) Generalised Lorenz curves for real disposable income, entire population Mid-1970s to mid-1990s

**United States** 



Source: OECD questionnaire (1999), except for Japan (first-wave results of questionnaire, published in OECD (1999).

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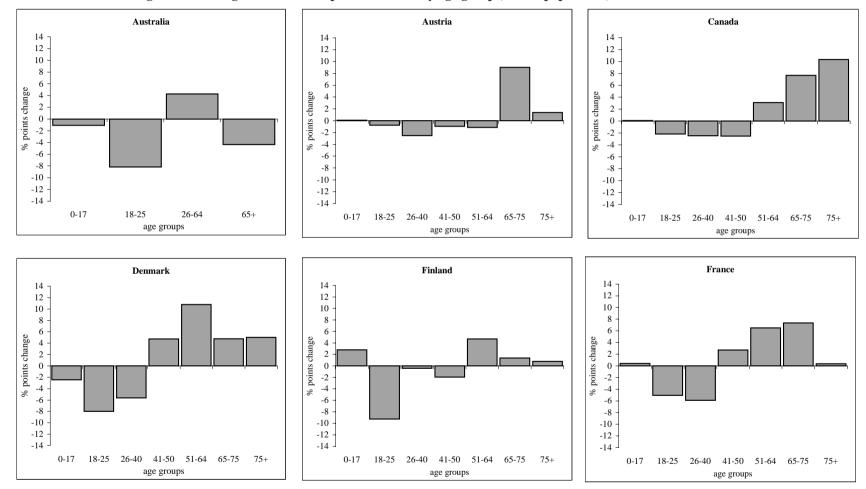


Figure 2.4: Changes in relative disposable income by age groups, entire population, mid-1980s to mid-1990s

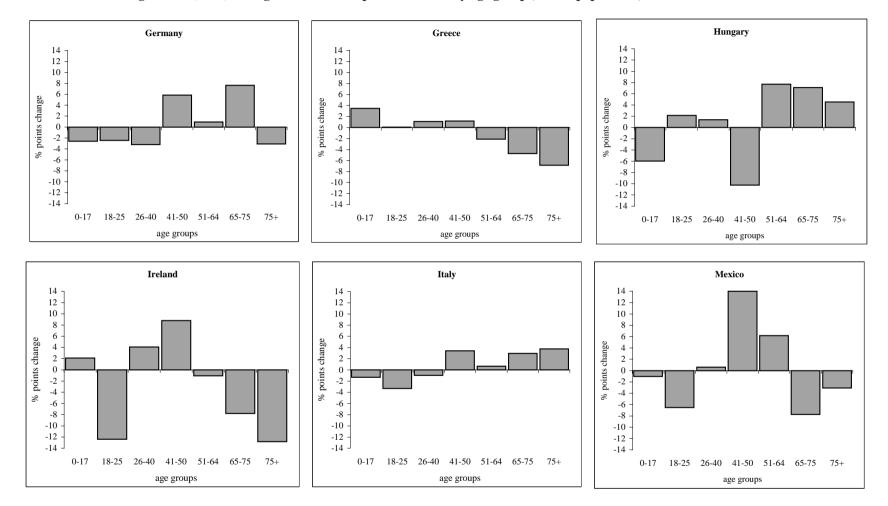


Figure 2.4: (cont.) Changes in relative disposable income by age groups, entire population, mid-1980s to mid-1990s

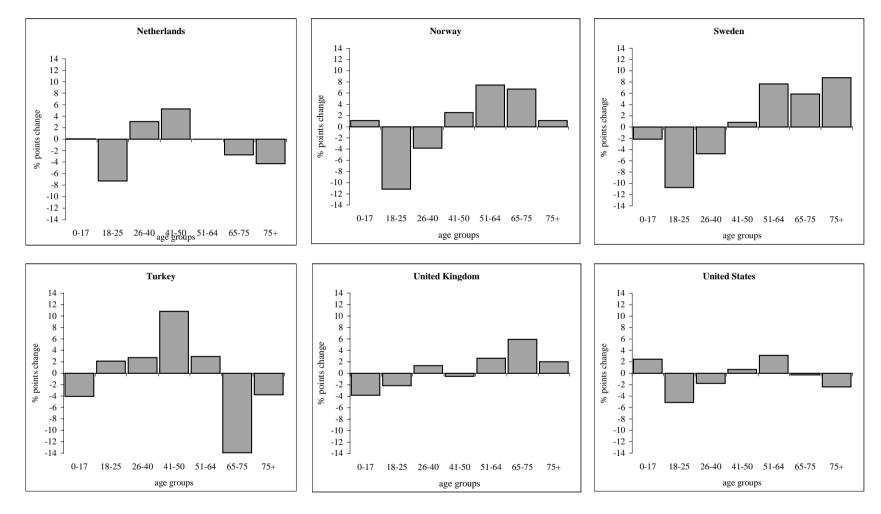


Figure 2.4: (cont.) Changes in relative disposable income by age groups, entire population, mid-1980s to mid-1990s

Source: OECD questionnaire (1999)

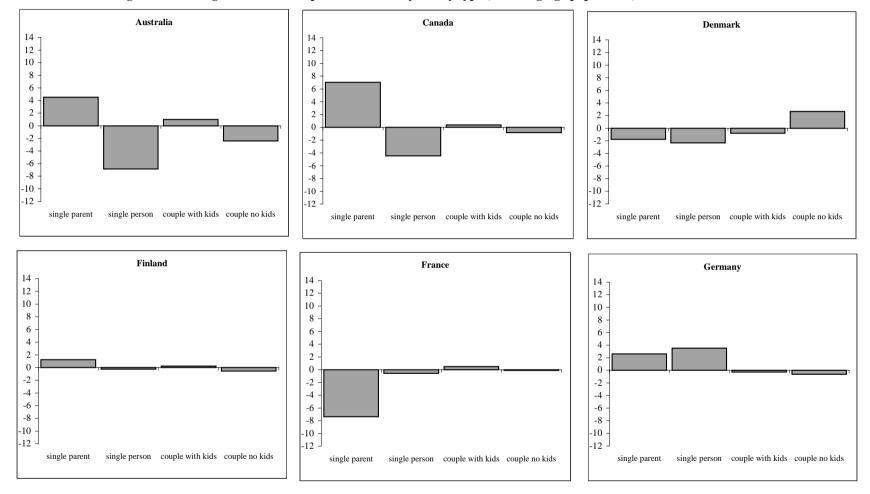
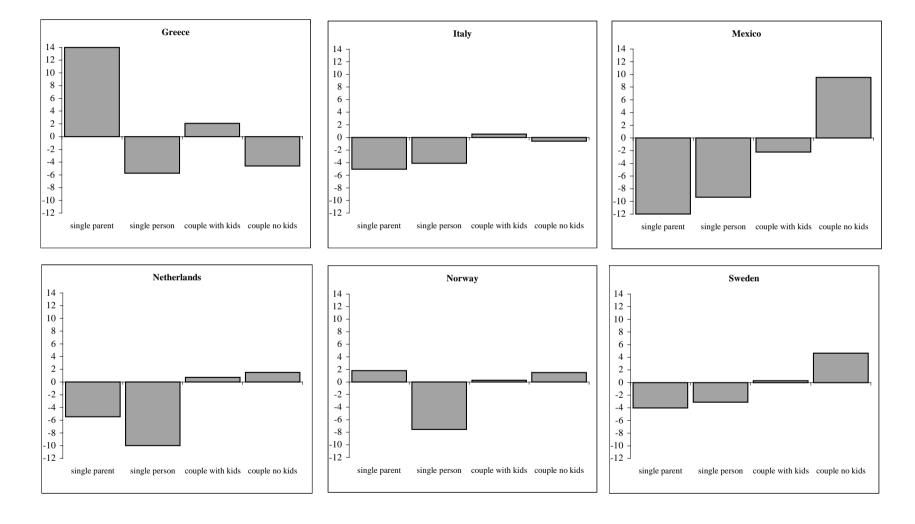


Figure 2.5: Changes in relative disposable income by family types, working-age population, mid-1980s to mid-1990s



### Figure 2.5: (cont.) Changes in relative disposable income by family types, working-age population, mid-1980s to mid-1990s

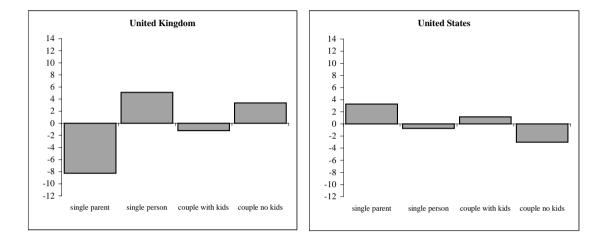
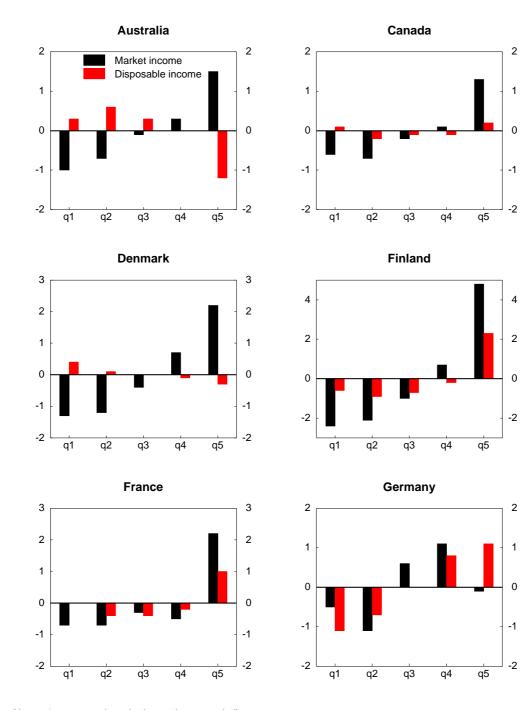


Figure 2.5: (cont.) Changes in relative disposable income by family types, working-age population, mid-1980s to mid-1990s

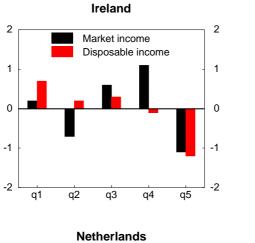
Source: OECD questionnaire (1999)

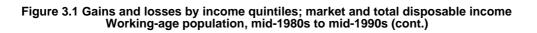


### Figure 3.1 Gains and losses by income quintiles; market and total disposable income Working-age population, mid-1980s to mid-1990s

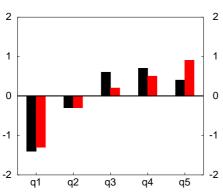
Note: q1 corresponds to the lowest income quintile. Source: OECD questionnaire (1999).

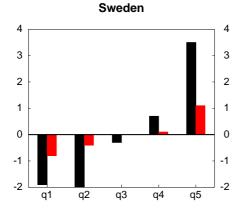
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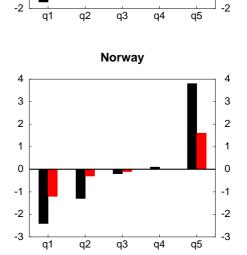


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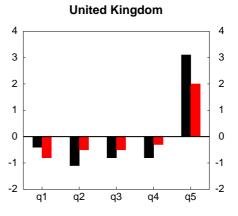


Note: q1 corresponds to the lowest income quintile. Source: OECD questionnaire (1999).

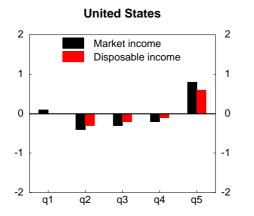


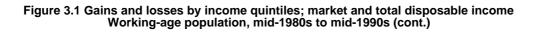
Italy

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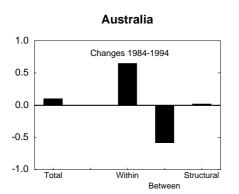
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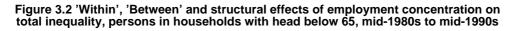


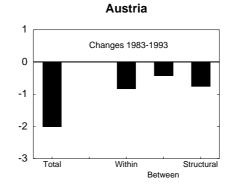


Note: q1 corresponds to the lowest income quintile. Source: OECD questionnaire (1999).

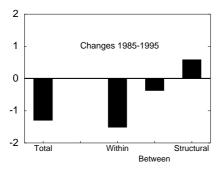
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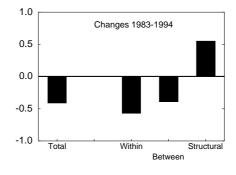




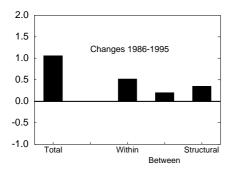




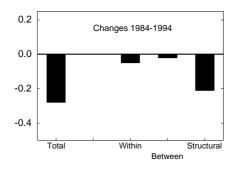








France



Note: Three groups are considered for decomposition of changes: persons in fully employed households, workless households and 'mixed' households. Source: OECD questionnaire (1999).

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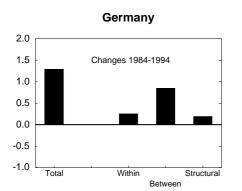
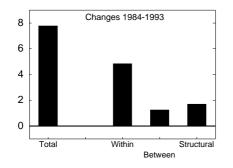
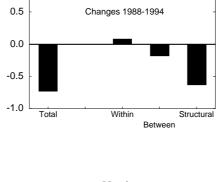


Figure 3.2 'Within', 'Between' and structural effects of employment concentration on total inequality, persons in households with head below 65, mid 1980s to mid 1990s

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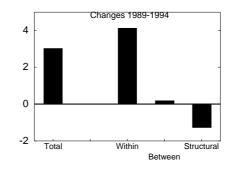




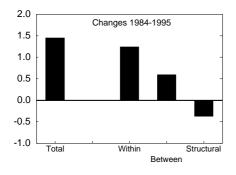


Greece

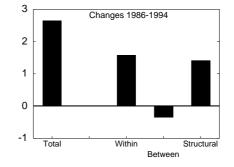




Netherlands



Norway



Note: Three groups are considered for decomposition of changes: persons in fully employed households, workless households and 'mixed' households. Source: OECD questionnaire (1999).

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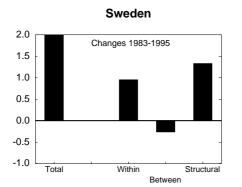
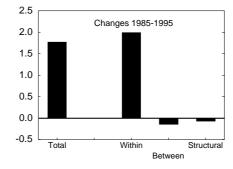
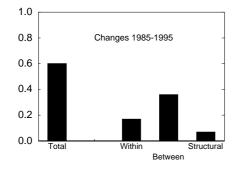


Figure 3.2 'Within', 'Between' and structural effects of employment concentration on total inequality, persons in households with head below 65, mid 1980s to mid 1990s



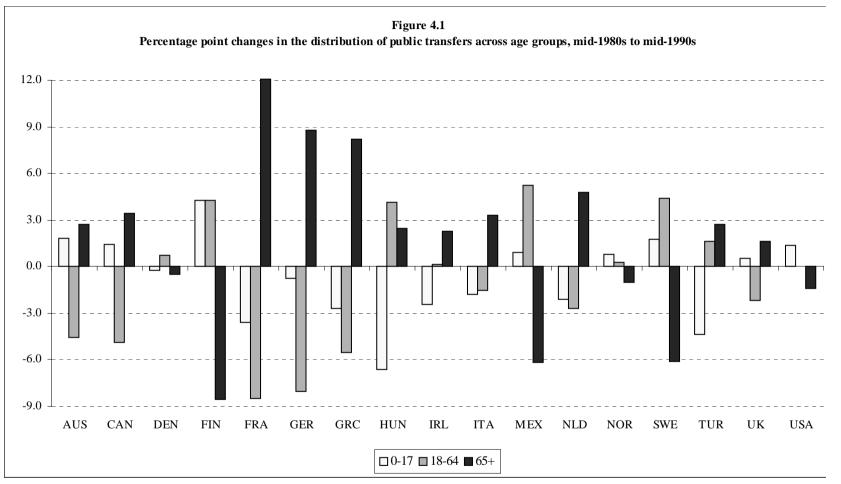
**United Kingdom** 



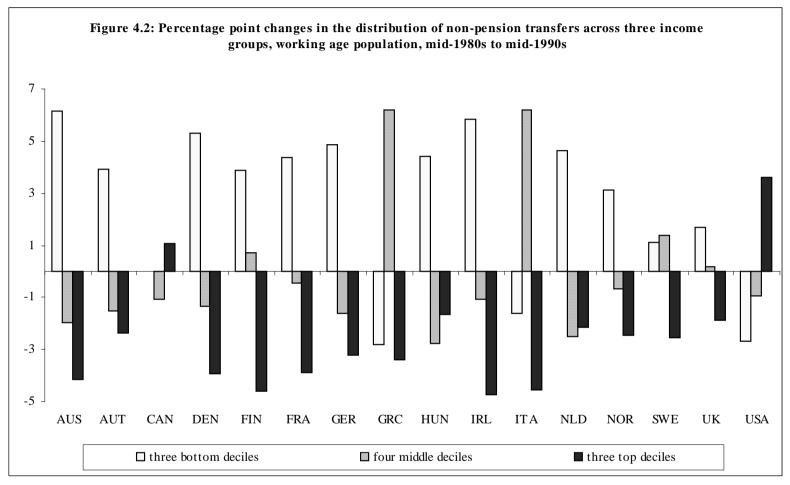


Note: Three groups are considered for decomposition of changes: persons in fully employed households, workless households and 'mixed' households. Source: OECD questionnaire (1999).

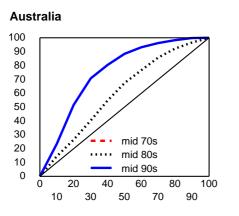
File:fig323.inp



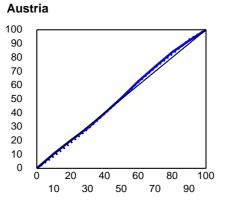
Source: OECD questionnaire (1999).



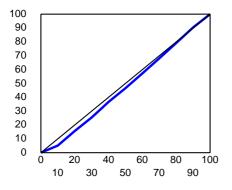
Source: OECD questionnaire (1999).



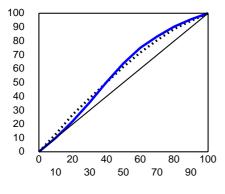
#### Figure 4.3 Panel A. Pseudo-Lorenz curves for family cash benefits Working-age population, mid-1970s to mid-1990s



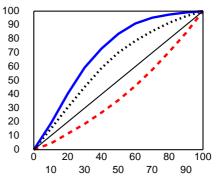
#### Belgium



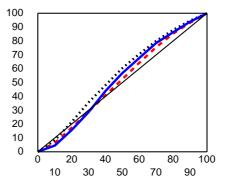






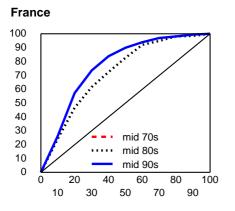


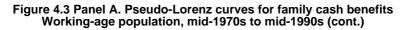


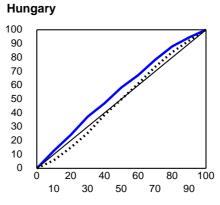


Note: Each chart plots cumulative percentages of the working-age population ranked by disposable income against cumulative percentages of family cash benefits. Source: OECD questionnaire (1999).

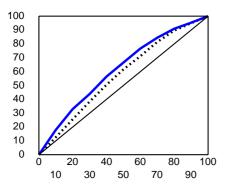
File:fig431.inp



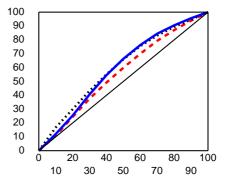


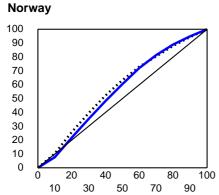


Ireland

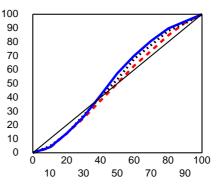






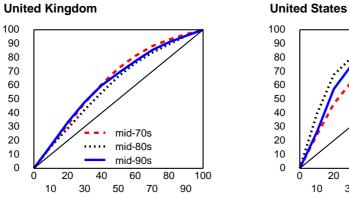


Sweden



Note: Each chart plots cumulative percentages of the working-age population ranked by disposable income against cumulative percentages of family cash benefits. Source: OECD questionnaire (1999).

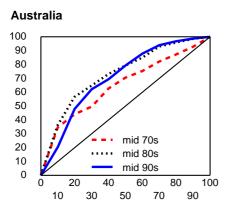
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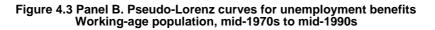


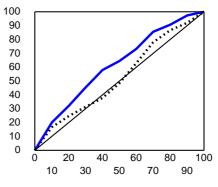
### Figure 4.3 Panel A. Pseudo-Lorenz curves for family cash benefits Working-age population, mid-1970s to mid-1990s (cont.)

Note: Each chart plots cumulative percentages of the working-age population ranked by disposable income against cumulative percentages of family cash benefits. Source: OECD questionnaire (1999).

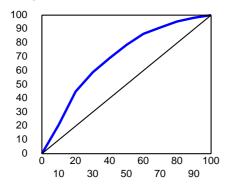
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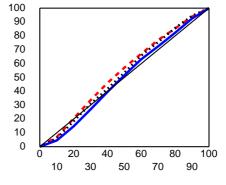


#### Belgium

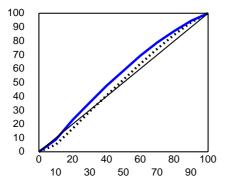


Canada

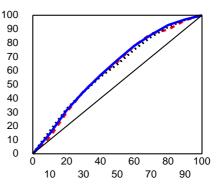
Austria





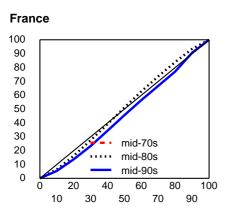






Note: Each chart plots cumulative percentages of the working-age population ranked by disposable income against cumulative percentages of unemployment benefits. Source: OECD questionnaire (1999).

File:fig431b.inp



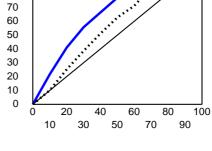
#### Figure 4.3 Panel B. Pseudo-Lorenz curves for unemployment benefits Working-age population, mid-1970s to mid-1990s (cont.)

Hungary

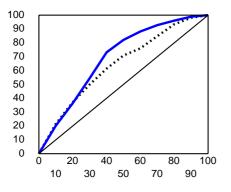
100

90

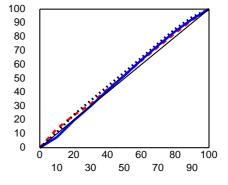
80



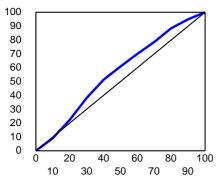
Ireland



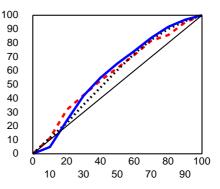






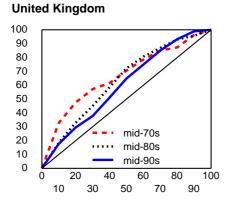


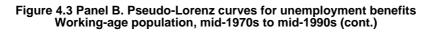
Sweden



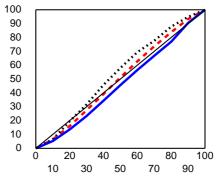
Note: Each chart plots cumulative percentages of the working-age population ranked by disposable income against cumulative percentages of unemployment benefits. Source: OECD questionnaire (1999).

File:fig432b.inp



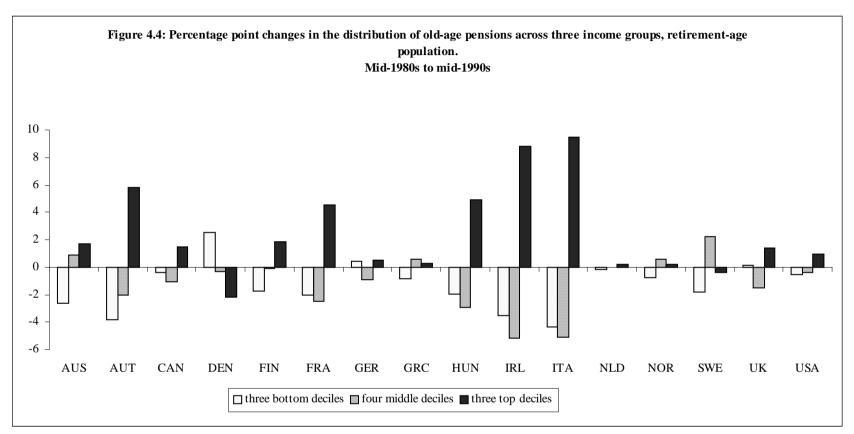


**United States** 

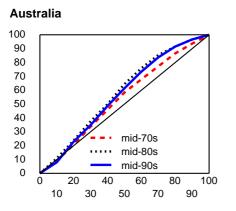


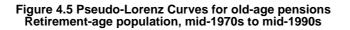
Note: Each chart plots cumulative percentages of the working-age population ranked by disposable income against cumulative percentages of unemployment benefits. Source: OECD questionnaire (1999).

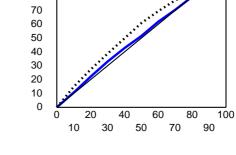
File:fig433b.inp



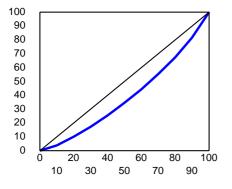
Source: OECD questionnaire (1999).







Belgium



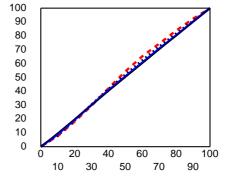
Canada

Austria

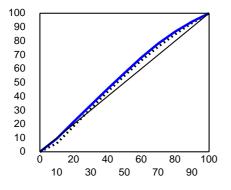
100

90

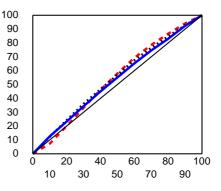
80



Denmark

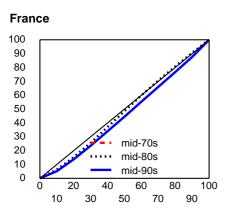


Finland



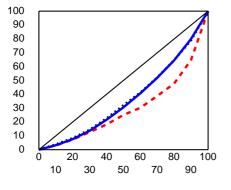
Note: The charts plot cumulative percentages of the retirement-age population ranked by disposable income against cumulative percentages of old-age pensions. Source: OECD questionnaire (1999).

File:fig451.inp

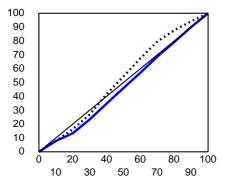


#### Figure 4.5 (cont.) Pseudo-Lorenz curves for old-age pensions Retirement-age population, mid-1970s to mid-1990s

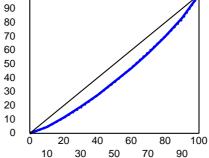




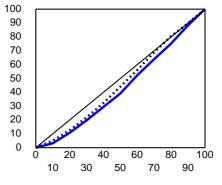




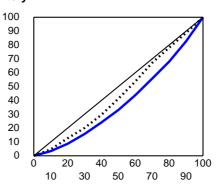






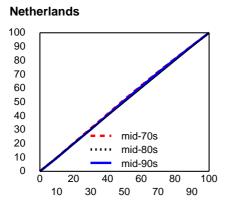


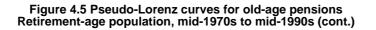
Italy



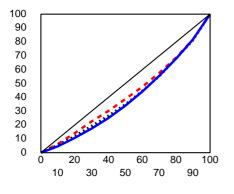
Note: Each chart plots cumulative percentages of the retirement-age population ranked by disposable income against cumulative percentages of old-age pensions. Source: OECD questionnaire (1999).

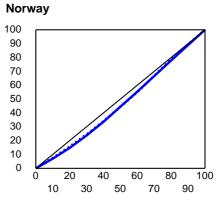
File:fig452.inp



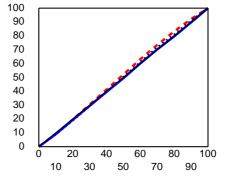


Sweden

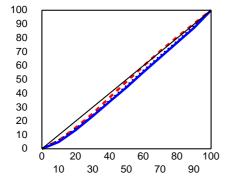




**United Kingdom** 



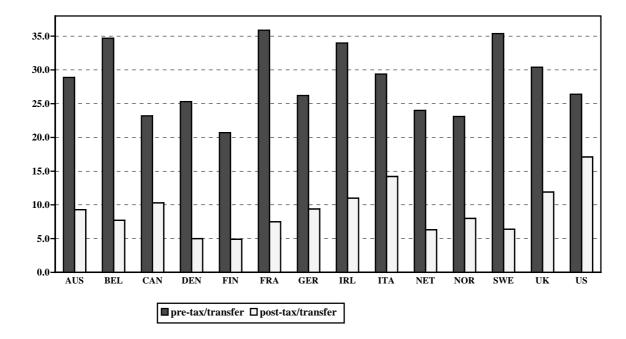
#### **United States**



Note: Each chart plots cumulative percentages of the retirement-age population ranked by disposable income against cumulative percentages of old-age pensions. Source: OECD questionnaire (1999).

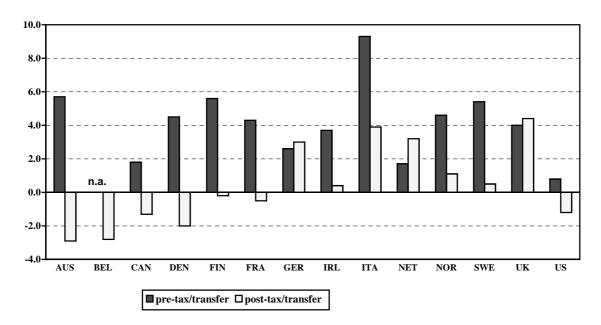
File:fig453.inp

# Figure 5.1 Pre-and post tax and transfer poverty rates, entire population



# A. Poverty rates mid-1990s

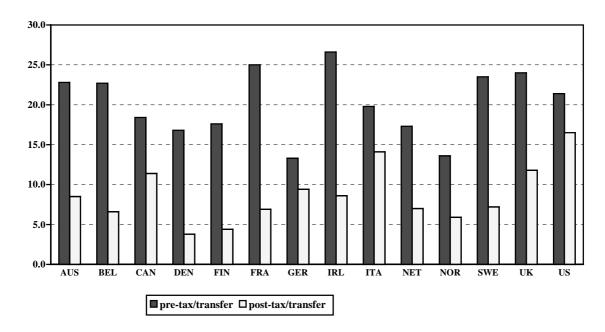
# B. Percentage point changes mid-1980s to mid-1990s



*Note:* Poverty rate: percentage of persons in households below 50% of median adjusted disposable income *Source*: OECD questionnaire (1999).

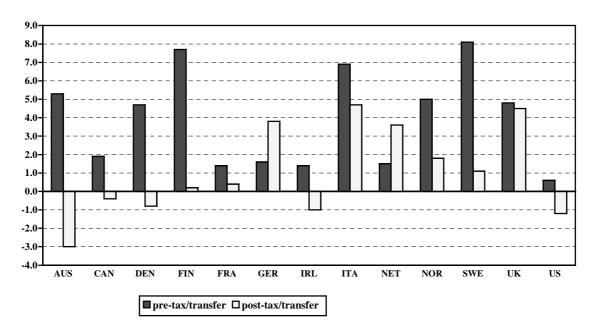
### DEELSA/ELSA/WD(2000)3

# Figure 5.2 Pre-and post tax and transfer poverty rates, working-age population



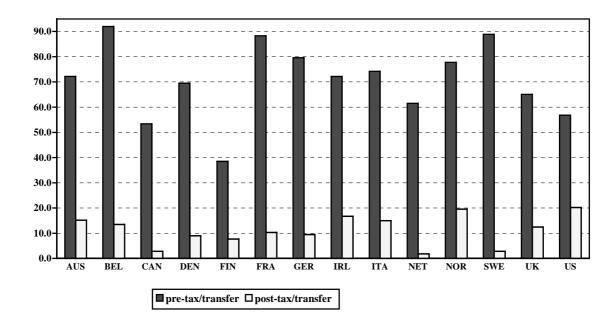
# A. Poverty rates mid-1990s

# B. Percentage point changes mid-1980s to mid-1990s



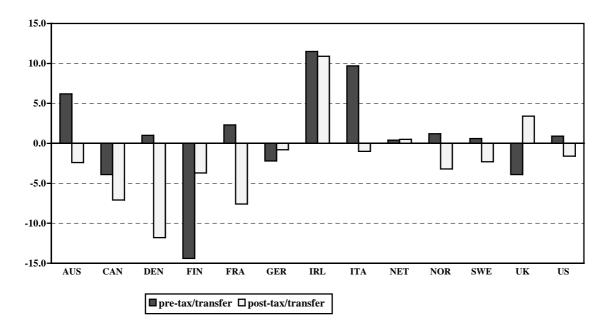
*Note:* Poverty rate: percentage of persons in households below 50% of median adjusted disposable income *Source*: OECD questionnaire (1999).

# Figure 5.3 Pre-and post tax and transfer poverty rates, retirement-age population

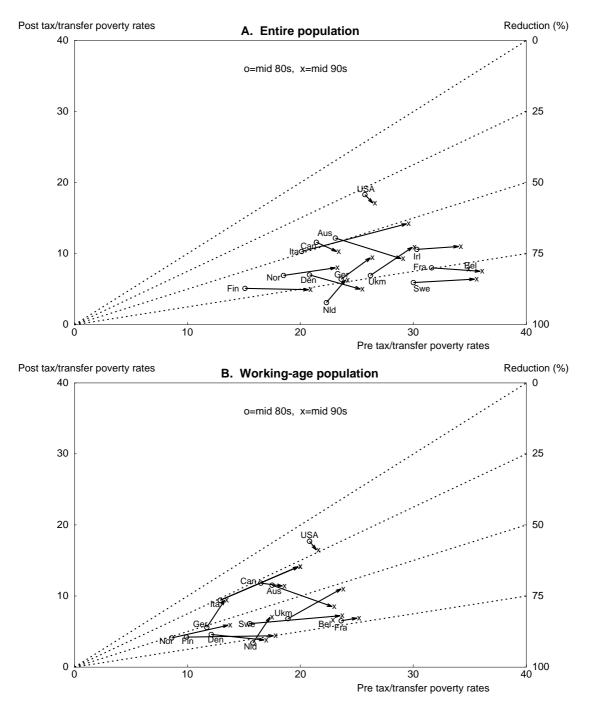


# A. Poverty rates mid-1990s

### B. Percentage point changes mid-1980s to mid-1990s



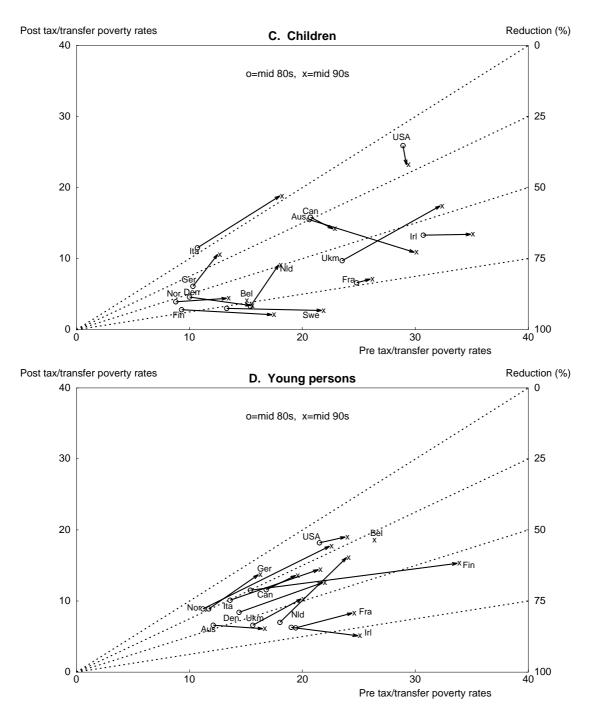
*Note:* Poverty rate: percentage of persons in households below 50% of median adjusted disposable income *Source*: OECD questionnaire (1999).



### Figure 5.4 Poverty rates before and after taxes and transfers, specific population groups Mid-1980s and mid-1990s

Note: Poverty rate: percentage of persons in households below 50% of median adjusted disposable income. Source: OECD questionnaire (1999).

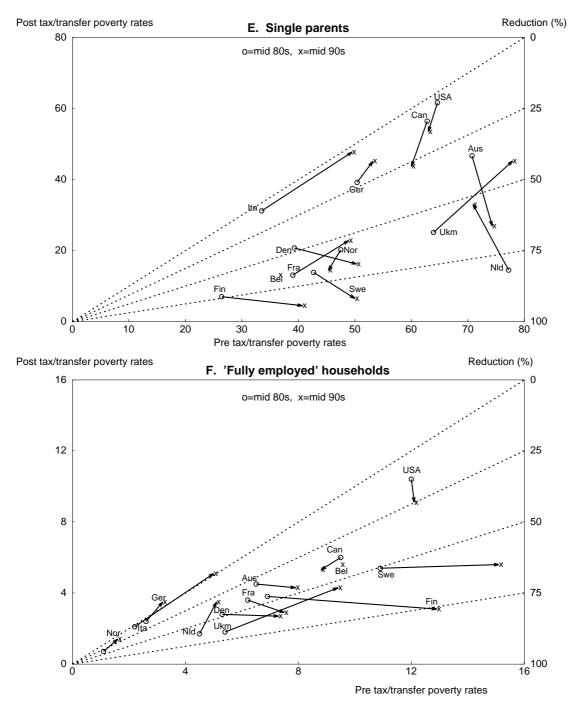
fig541.inp



### Figure 5.4 Poverty rates before and after taxes and transfers, specific population groups Mid-1980s and mid-1990s (cont.)

Note: Poverty rate: percentage of persons in households below 50% of median adjusted disposable income. Source: OECD questionnaire (1999).

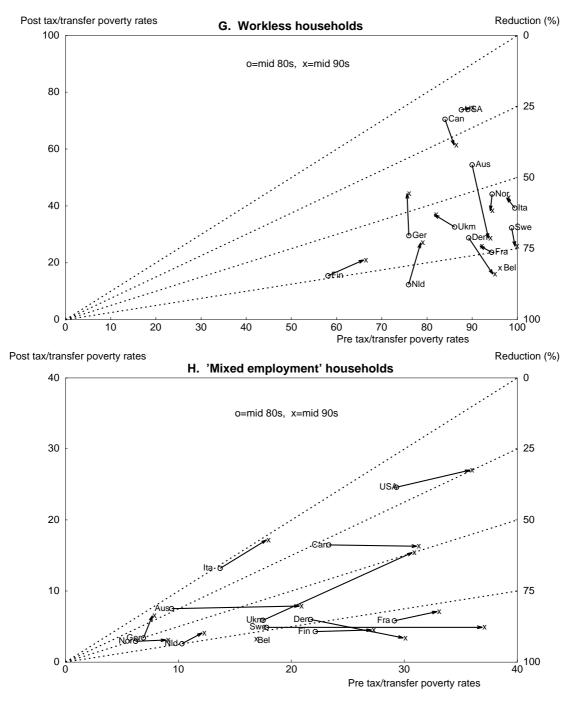
fig462.inp



### Figure 5.4 Poverty rates before and after taxes and transfers, specific population groups Mid-1980s and mid-1990s (cont.)

Note: Poverty rate: percentage of persons in households below 50% of median adjusted disposable income. Source: OECD questionnaire (1999).

fig543.inp



### Figure 5.4 Poverty rates before and after taxes and transfers, specific population groups Mid-1980s and mid-1990s (cont.)

Note: Poverty rate: percentage of persons in households below 50% of median adjusted disposable income. Source: OECD questionnaire (1999).

fig544.inp

DEELSA/ELSA/WD(2000)3

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