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**Principles and Practicalities for
Measuring Child Poverty in Rich Countries**

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Principles and practicalities for measuring child poverty

in the rich countries

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Abstract

This paper has three objectives. The first is to discuss the major issues involved in defining and measuring child poverty. The choices that must be made are clarified, and a set of six principles to serve as a guide for public policy are stated. The second objective is to take stock of child poverty and changes in child poverty in the majority of OECD countries since about 1990 when the Convention on the Rights of the Child came into force. Finally, the third objective is to formulate a number of suggestions for the setting of credible targets for the elimination of child poverty in the rich countries. This involves a method for embodying the ideal of children having priority on social resources into a particular set of child poverty reduction targets, it involves the development of appropriate and timely information sources, and finally it involves the clarification of feasible targets that may vary across the OECD.

Child poverty rates vary by more than a factor of ten across the OECD, from less than three percent to over 20 and almost 30%. These countries fall into four broad groups, those with child poverty rates less than 5%, those with higher rates but still less than 10%, those with rates higher than 10% and as high as 20%, and finally two countries with more than one-in-five children being poor. In the strong majority of countries child poverty rates have actually gone up. In 16 of 24 OECD countries the child poverty rate at the end of the 1990s was higher than at the beginning, and in only three countries has it declined to a measurable degree.

An important challenge in reversing this trend concerns the need to develop a clear definition of child poverty for public policy in specific national contexts and to set

feasible and credible targets. Economic theory, accepted statistical practice and best practice in the OECD suggest the following six principles to guide decision making: (1) avoid unnecessary complexity by using an income based measure of resources; (2) complement this by measuring material deprivation directly using a small set of indicators; (3) draw poverty lines with regard to social norms; (4) establish a regular monitoring system and update poverty lines within a five year period; (5) set a both a backstop and a target by using fixed and moving poverty lines; and (6) offer leadership and build public support for poverty reduction.

Principles and practicalities in measuring child poverty for the rich countries

The United Nations Convention on the Rights of the Child contains 54 articles covering almost every aspect of the rights and well being of children. It is a comprehensive legal text negotiated and agreed to by 192 heads of state. But the Convention is also a specific commitment made to the children of the world. It is natural to ask, especially since it is now over 15 years since their adoption by the UN General Assembly, if these commitments are being fulfilled, if this ideal is being put into practice. This paper is motivated by this concern and takes as its starting point two articles that relate directly to the material well being of children.

Article 27 states that governments "recognize the right of every child to a standard of living adequate for the child's physical, mental, spiritual, moral and social development." It states that parents or others responsible for the child "have the primary responsibility to secure … the conditions of living necessary for the child's development," but that governments should assist parents "to implement this right and shall in case of need provide material assistance and support programmes, particularly with regard to nutrition, clothing and housing." Article 4 notes that these rights shall be fulfilled by each country "to the maximum extent of their available resources."

Putting these principles into practice may certainly be a challenge. They establish the elimination of child poverty not only as a policy objective, but one that takes top

priority. And even if children are given first call on social resources, at least three practical challenges stand in the way. First, a committed government must define a minimum standard of living necessary to secure children's normal physical and social development; second, it must understand the capabilities and limits of families and markets in providing this standard of living; and third, it must develop an evidence-based awareness of the impact its policy and budgetary decisions actually have on children. Resolving these issues places governments in a position to formulate credible policies, and make the attainment of an acceptable minimum standard of living for all children a reality.

This is no small agenda. Questions concerning the interaction between families, labour markets and government policy and how they influence child poverty rates are examined in Chen and Corak (2005), while the actual priorities embedded in government budgets are the subject of Corak, Lietz and Sutherland (2005). This paper addresses the first, and possibly most wide reaching challenge, that having to do with issues of definition.

The paper has three objectives. The first is to discuss the major issues involved in defining and measuring child poverty. Even the most committed governments have run into difficulties addressing these issues. Drawing from economic theory, accepted statistical practice, and a review of actual country experiences The choices that must be made are clarified, and a set of six principles to serve as a guide for public policy are stated. This review and these principles also help to justify a definition of child poverty for international comparisons. Accordingly, the second objective of the paper is to take stock of child poverty and changes in child poverty in the majority of OECD countries

since about 1990 when the Convention on the Rights of the Child came into effect. A set

of internationally comparable child poverty rates are offered and a number of data and

measurement issues addressed. Finally, the third objective of the paper is to formulate a

number of recommendations for the setting of credible targets for the elimination of child

poverty in the rich countries. This involves a method for embodying the ideal of children

having priority on social resources into a particular set of child poverty reduction targets,

it involves the development of appropriate and timely information sources, and finally it

involves the clarification of feasible targets that may vary across the OECD. Targets that

are structured to make children a priority, measured in an accurate and accepted manner,

and set at feasible levels suggest that government commitments are more likely to be

credible and therefore attainable.

1. Measuring child poverty in rich countries

An extensive literature deals with the definition and measurement of poverty.[1] However,

reading it at the broadest level suggests that three issues are involved: (1) a definition and

measurement of resources; (2) the establishment of a threshold distinguishing the poor

from the non-poor; and (3) a count, or more generally, an aggregation of the number of

poor into a useful index.

These issues are illustrated schematically in Figure 1. Resources need to be

defined and measured across the population in a statistically representative fashion, the

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[1] The major sources for what follows are: Atkinson (1998, 1989, 1987), Blackburn (1998), Duclos and Grégoire (2002), Expert Group on Household Income Statistics (2001), Fisher (1995, 1992), Foster (1998), Madden (2000), Nolan and Whelan (1996), Ravallion (1998, 1996), Sen (1999, 1983, 1976), Skuterud, Frenette and Poon (2004), and UNDP (2000). But this is obviously only a small subset of a very large number of studies reflecting longstanding public policy concerns.

poor need to be identified by setting a minimum acceptable level of resources, and then the number of poor need to be counted in some way. There is no single way to proceed appropriate for all places and all times. In particular, these issues cannot be determined solely in theoretical or scientific discourse. Value judgments are required to bridge the gap. Public policy makers, advocates, and for that matter statistical agencies need to be explicit about these in order to encourage appropriate public discussion, and not to mask questions of values as issues of technique.

a. Resources

The first issue is to define and measure the resources available to the population. In Figure 1 these are symbolized as y, and their distribution across the population as $f(y)$. The word "resources" is used loosely. What exactly it means will depend in part upon the theoretical perspective. A perspective based upon basic needs, as in Streeten *et al* (1981), will not necessarily give the same meaning to this term as one based upon capabilities, as in Sen (1999), or as one based upon "rights," as discussed for example in UNDP (2000). And even within a theoretical perspective the issue is not straightforward. For example, capabilities, in Sen's terms, vary in form and content from basic physical needs to avoid starvation, to avoid undernourishment, to prevent premature morbidity, but also broader opportunities for personal development through education and health care, and for social participation through civic liberties and economic freedom. Indeed, the wording of Article 27 of the Convention on the Rights of the Child calling for "a standard of living adequate for the child's physical, mental, spiritual, moral and social development" suggests that no single definition of resources can capture all aspects of what is

important. All this said, resources, however they are defined, need to be measured using nationally representative surveys based upon accepted statistical methods. When the focus is on children this requires appropriately designed questionnaires and survey methods that capture a measure of resources appropriate for understanding the standard of living from the child's perspective.

The availability of appropriate data is one important practical constraint on analyses of child poverty, particularly from an international perspective. Many empirical studies, and indeed public policy discussions, restrict the definition of resources to that of income in part for this reason. Though, as will be highlighted below, the availability of timely and accurate statistics for even this oft used measure is not without its limitations. However, in well developed economies, where the bulk of the private and indeed some of the public needs of individuals and families are met through markets, income is in fact a central element in the standard of living appropriate for physical and social development. As such it should play some important role as part of the resources used in the analysis of poverty. But even from this perspective it is a less than perfect measure. Income is of value because it is a means to an end, and it is not income *per se* that determines well being, but consumption. Ideally the most appropriate measure would be the actual consumption of private and public goods associated with development. Data availability often also precludes this.

With resources defined as income, and in some sense standing in for consumption, there remain some specific concerns associated with measurement. "Income" could refer to just earnings (payments from paid employment as an employee), to total market income (including earnings but also all other market based sources such as

self-employment, asset or interest income) or to total disposable income (all market incomes after taxes and transfers). In addition, in many surveys there are concerns about under-reporting—particularly among those with very high and very low incomes—as well as top and bottom coding of individual information by survey administrators for either reasons of data quality or confidentiality. There are also concerns about the use of annual income, which may be subject to measurement error or to considerable transitory fluctuations suggesting it is a less than entirely accurate indicator of the underlying "permanent" income determining consumption decisions.

Two related analytical choices also play an important role, particularly in discussions of child poverty: the definition of the unit of analysis, and the appropriate equivalence scale. The unit of analysis could refer to the household (all individuals living together in the same dwelling), the family (all individuals in the same dwelling related by blood, marriage or adoption), or the individual. A focus on children that in some sense is rights based suggests that the unit of analysis be the individual, and this indeed is both recommended and common practice.[2] Individual incomes are calculated by dividing household income among each of its members. But this requires an understanding, or an assumption, of how resources are shared within the household and how the economies of living together are to be taken into account.

Until relatively recently economic theory was silent on how economic resources are shared within the household. Models of the family were often based on the assumption that multi-person households could be treated as if they were single individuals, in effect assuming that a benevolent household head's preferences were

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[2] See for example Expert Group on Household Income Statistics (2001) and Skuterud, Frenette and Poon (2004).

representative of all other members. This has changed a good deal, with an important

literature developing on the sharing rules in households from the research summarized in

Browning (1992), and particularly from Browning, Bourguignon, Chiappori, and

Lechene (1994). This research still does not offer accepted generalities, and empirical

analyses are often based upon the assumption that resources are shared equally. This may

be a convention, but not one that should be accepted lightly. Assuming that children

obtain an equal share of available household resources charts a middle road between the

deprivation they may be subject to if parents consume a disproportionate share, and the

extra protection they might receive if parents make sacrifices to ensure children do not go

without. Indeed, the best empirical analyses suggest that the source of income in the

household makes a difference for the types of goods purchased and their relative benefit

for children. To cite only two examples, this is as true in a rich country like the United

Kingdom as it is in a less rich country like South Africa. Lundberg, Pollack, and Wales

(1997), for example, find that the payment of family allowances directly to mothers in the

UK is associated with more spending on goods of relatively more benefit to children, and

Duflo (2000) finds that increases in South African state pensions for the elderly led to

improvements in the health and nutrition of children, particularly girls, entirely because

of increases in the purchasing power of grandmothers.

Finally, different equivalence scales may imply different poverty rates and

relatedly a different composition of the population who are poor. The equivalence scale is

meant to account for the fact that household formation entails certain costs that do not

change with increases in household size. An often used scale is the square root of

household size, which implies that a household of four individuals requires only twice as

many resources to have the same per-person standard of living as a single person household. Though this is often seen as a suitable middle ground, as for example in the report of the Expert Group on Household Income Statistics (2001), there is little empirical consensus on just what is the true equivalence. Indeed, as Atkinson (1998) stresses it is very likely to vary from country to country with differences in the fixed costs of household formation.

It should also be noted that other often used equivalence scales, such as those put forward by the OECD, are based on different weights being given to individuals in the households. In these measures children are given lower weight than adults. In the original OECD equivalence scale the first adult in each household is given a weight of one, but each additional adult 0.7, and each child 0.5. So that a family of four consisting of two adults and two children would be counted as 2.7 individuals. The modified OECD that has supplanted this standard gives the second and other adults a weight of 0.5, and each child a weight of 0.3.[3] The same family of four is now counted as 2.1 individuals. The contrast between these two alternatives also makes the general point that the composition of the population, and of the poor, will vary with the choice of equivalence scale: the latter increasing the proportion made up of adults and reducing the proportion of children.[4] In sum, the choice of equivalence scale can be important as it embodies assumptions about the relative needs of household members and in particular the importance attached to children. These choices are based less on theory or actual empirical observation than on convention and assumption.

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[3] Some alternatives also differentiate children by age, those less than fifteen given a smaller weight than those between 15 and 18.
[4] Bradshaw (2004) makes this point, and the impact on the composition of the poor is discussed more generally in Atkinson (1998).

b. Identification of the poor

The second issue that needs to be addressed in order to establish a poverty indicator involves setting a minimum threshold of resources distinguishing the poor from the non-poor. In Figure 1 this is indicated by *Y*. This is a contentious issue, and one in which the theoretical economics literature offers limited guidance: there is no simple answer in the technical literature as to where the poverty line should be drawn or how it should be updated over time.

Given that income is considered to be the relevant resource the poverty threshold is often defined in two broad ways: in terms of the cost of a specific basket of goods deemed in some sense to be necessities; in terms of a certain fraction of what is deemed to be a typical income level. The former can be based on budget studies of consumption and the cost of a particular basket of goods, and are often referred to as "absolute" poverty lines[5]; the latter relate to a particular proportion of an income level deemed in some sense to be typical, and are often referred to as "relative" lines. However the distinction between these two approaches has less to do with methods of calculation, budget studies versus proportions of typical incomes, than with the extent of reference to the general community. The use of the adjective "absolute" reflects the idea that these lines are intended to make no reference to the consumption level of the general population, while the use of "relative" is meant to underscore the fact that they explicitly make such comparisons.

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[5] The appropriate basket of goods is also sometimes determined by consulting the opinion of experts be they in the private sector or in government. So-called "subjective" poverty lines are also used, being derived by directly asking a representative sample of individuals what they think is the minimum threshold level of income.

If this distinction is correct then it should be noted that there is a longstanding tendency in theory suggesting poverty lines cannot be defined without reference to prevailing norms of consumption among members of the relevant community. This was clearly the view of Adam Smith who wrote, in an often cited passage from the *Wealth of Nations* published in 1776, that: "[b]y necessaries I understand not only the commodities which are indispensably necessary for the support of life, but what ever the customs of the country renders it indecent for creditable people, even the lowest order to be without." He goes on to offer a number of examples of goods, like linen shirts or leather shoes, that would be considered necessities in the England of his time. But he also underscores the fact that this will vary over time and across communities—people, for example, could live in some communities in the Europe of the 1770s without leather shoes, and without the "shame" or "disgrace" this would entail in other communities—and concludes that "[u]nder necessaries, therefore, I comprehend not only those things which nature, but those things which the established rules of decency have rendered necessary to the lowest rank of people. All other things I call luxuries … Nature does not render them necessary for the support of life, and custom nowhere renders it indecent to live without them." (1776, Book 5, Chapter 2) A clear echo of this point of view more than 200 years later is in, among others, Atkinson (1998), or for that matter in the Convention on the Rights of the Child where children have a right to a standard of living adequate not only for physical development but also moral and social development, concepts that cannot be defined without reference to the broader community. Just where to draw the poverty line is inherently a value judgment dealing with what is required to function normally in society.

A clarification between absolute versus relative issues in the definition of poverty lines is offered by Sen (1999, 1983). He stresses that the differences between these perspectives relate to differences in what is taken to be the underlying measure, to use the wording of Figure 1, of resources. "Standard of living" is best understood not in terms of income or commodities but rather the capability to do things, to function with incomes and commodities. To Sen "poverty is an absolute notion in the space of capabilities but very often it will take a relative form in the space of commodities...." (1983, p. 161). This implies that the commodities and incomes necessary to meet the same absolute capability, in terms of both physical capability and the capability to function without shame, will vary with the overall development of the community.

The contradictions in relying upon an "absolute" poverty threshold in terms of commodities or incomes is also evident by the empirical observation that these necessities are seen to change through time as communities experience economic growth and changes occur in both the goods that are available and the consumption patterns of the majority. This is documented for example in Fisher (1995), and suggests that in some fundamental way it is not a simple task to gauge even the basics of survival without reference to the wider community.

This raises a second important concern in setting the poverty line. If resources are defined in terms of commodities or incomes, how should the poverty line be updated? As Fisher (1995) and Foster (1998) suggest the terms "absolute" and "relative" can enter into the discussion of poverty lines in a number of different ways: both as an indication of how the threshold is established, but also how it is updated over time. An "absolute" threshold is updated with the passage of time only for changes in overall price levels, not

changes in the composition of the original basket of goods or level of the reference income level; a "relative" threshold is updated both for changes in price levels as well as changes in the composition of the basket of goods deemed necessary, or as the case may be changes to the typical income. To avoid confusion these differences are referred to as poverty measures based upon "fixed" and "moving" poverty lines. Should the poverty line remain forever fixed, or should it change in lock step with contemporaneous incomes? There is no theoretical answer to this. The threshold must in some sense represent the level of resources below which it would be insufficient to participate normally in society, and it should be updated as changes occur in the availability and consumption of goods and services that determine this norm.

A fixed poverty line is less justifiable over a period of time involving considerable economic change, particularly when this involves changes in the types of goods available or the social infrastructure and other requirements necessary to function in society, at work, at school, or in the home. But the changes in opportunities and attitudes may not at the same be so rapid as to justify a continual updating by tying the poverty line to annual developments. Ultimately the issue of updating is an open question that ideally would be settled by developing an objective understanding of how the majority in a community function and how this evolves.

Accepted statistical practice may offer some guidance. The task of tracking patterns and changes in consumer expenditures is one that governments regularly deal with in other contexts, and in which consensus has emerged on accepted practice. The accurate measurement of the inflation rate, for example, is central to many aspects of public policy including in some countries and regions the setting and monitoring of

specific targets. The inflation rate is determined by changes in the costs of a specific basket of goods over time. The contents of this basket are in turn determined at a particular point in time through nationally representative surveys to reflect the consumption patterns of the average consumer. The important issue, which can lend a bias to these calculations if it is not addressed, concerns the frequency with which the contents of the basket are updated. Without a regular updating the inflation rate will measure changes in prices that do not necessarily reflect what the average consumer is currently purchasing. These goods could change because of changes in relative prices and incomes, the introduction of new goods, or changes in retailing and packaging.

As such a part of the statistical program in the measurement of the consumer price index includes a "rebasing" of the basket of goods taken to be representative of the average. Table 1 illustrates the statistical practice in the OECD countries. In the majority of countries consumption patterns are re-based within five years, and in many countries biannually or annually. As of early 2004, when the information in this table was collected, only four of 28 countries were using consumer information predating 1999. The historical experience in the United States is, at 10 years, the longest interval listed in the table, but this has changed in 2002 to every two years. The International Labour Organization, which is responsible for setting international guidelines on price measurement, recommends that it occur within a five year period. All of this is to suggest that in contexts outside of poverty measurement governments have concluded that consumption patterns change sufficiently rapidly that updating has to occur within a five year and very likely shorter period.

c. Aggregation to an index

The third and final issue in defining and measuring poverty deals with how to count the poor. There is an extensive economic literature on this issue in the context of income poverty. In large part this springs from dissatisfaction with the most commonly used measure in public discourse, the so-called "headcount ratio." This ratio, which is often simply called the poverty rate, refers to the number of people below the poverty threshold (represented as n in Figure 1) divided by the total number of people in the population (represented as N). The child poverty rate calculated in this way is the total number of poor children divided by the total number of children.

Setting a poverty threshold identifies the poor, but how they are "aggregated" (that is counted) matters a good deal because it reflects a value judgment on the relative importance to give those very much below the threshold versus others hovering closer to the boundary between being poor and not being poor. The headcount ratio explicitly assumes that poverty is a discrete event associated with being above or below a given line, and therefore every one below the line is given equal consideration. The appropriateness of this assumption will depend upon the theoretical perspective used.

A strict interpretation of a rights perspective might suggest that the headcount ratio is, in fact, the appropriate index. Atkinson (1998, 1989) suggests that a "right' is an either-or concept: it is either being respected or it is being violated. There is accordingly an obligation to correct a wrong or there isn't. In this sense an indicator based upon a view that poverty is a discrete condition reflecting the attainment of less than a minimum acceptable standard might be viewed as appropriate. But other interpretations, and indeed other interpretations based upon a rights perspective, might quite reasonably suggest that

individuals below the poverty threshold should not be weighted equally. The situation of those very much below the poverty line might in some sense matter more than those just below. The headcount ratio could after all be lowered by taking enough money from the very poorest and transferring it to those hovering just below the poverty line in order to move them just above. This sort of policy, which would lower the headcount ratio, might not have a good deal of intuitive appeal to many observers. Or just as importantly a finding that poverty rates have gone up might imply only slight falls in the relative income of those just above the poverty line and mask important improvements in the circumstances of those very much below.

In other words, there may be a need to recognize the severity of poverty, not just its incidence. A well developed economics literature discusses the ideal characteristics a poverty index should have, and offers a host of alternative classes of measures. Only two specific alternatives are presented in Figure 1, the average poverty gap—which measures the average short fall from the poverty line for those who are below it—and the poverty gap squared, which is similar but gives even more weight to those further from the poverty line. These two examples hint at one of the other reasons the headcount ratio may have broad appeal: simplicity and transparency in its calculation makes it an important public policy tool for communicating to a broader public. A claim that the square of the poverty gap has changed may not have the same broad appeal or public resonance as one referring to changes in the fraction of people who are poor, or for that matter the associated number of individuals.

But this fact should not preclude focusing on issues of severity or deprivation, just that it might be profitably done in more transparent ways than clinging to ever more

complicated indices of income shortfalls. In this sense it may once again be important to broaden the definition of resources. Measuring deprivation directly as indicated by certain basic goods or the fulfillment of basic needs is an alternative suggested in the literature, for example by Nolan and Whelan (1996). It is also suggested by Article 27 of the Convention on the Rights of the Child, which explicitly mentions nutrition, clothing, and housing as specific indicators. The absence or inability to afford these, or related, markers of severe material deprivation can act as a complement to the headcount ratio in a way that continues to be transparent and have broad appeal. It also explicitly recognizes the empirical shortcomings of relying on annual income: that it cannot represent all dimensions of poverty, and that it may be only a loose indicator of longer term economic status.

2. Country experiences

This representation of the issues suggests that the definition and measurement of poverty is not just a matter for the theoretician or the statistician, but inherently involves value judgments requiring public consultation and choices. Theory and statistical methods offer some guidance in settling the important issues, but this is less than complete. There is, for example, the clear suggestion that the individual should be the unit of analysis, that relative notions must enter into income based measures of poverty lines, and some strong arguments for relying on the headcount ratio, though not without reservation. But crucial issues on how to exactly set the poverty threshold, how to update it through time, and for that matter the nature of other types of resources to complement annual income are very

much left open. For this reason it is helpful to review actual country experiences in the hope of clarifying both challenges and best practices.

National developments vary tremendously: some countries have not attempted to define or measure child poverty; some have made the attempt but have become tangled in technicalities and indecision; while others have established clear definitions, put into place instruments for measurement and monitoring, and set targets. A broad overview of country experiences in the measurement of poverty and the setting of targets is given in Conseil de l'Emploi, des Revenus et de la Cohésion Sociale (2002), and the following review uses this as a starting point.

a. North America

The United States is one of the few OECD countries to have an official definition of poverty and a long historical record in regularly publishing a wide range of complementary indicators of poverty and inequality, including information on children. However, the poverty measure dates back to concepts and judgments made in the early 1960s, and the extent to which it continues to represent the reality of contemporary US society has been the subject of a good deal of discussion. As an open letter written by over 40 prominent scholars to senior government officials in departments responsible for the construction of the poverty line states: unless "we correct the critical flaws in the existing measure, the Nation will continue to rely on a defective yardstick to assess the effects of policy reform."[6]

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[6] "An Open Letter on Revising the Official Measure of Poverty," Conveners of the Working Group on Revising the Poverty Measure, August 2, 2000, available at www.ssc.wisc.edu/irp/povmeas. Other references for the following discussion include Fisher (1999, 1992) and Short and Garner (2002).

In the United States the poverty line is a monetary concept reflecting the cost of purchasing a nutritional diet. This calculation dates back to work done in the Department of Agriculture in 1961 using survey information from 1955 on the so-called "Thrifty Food Budget." The poverty threshold was set at three times the cost of this diet to allow for the purchase of all other goods, with adjustments for family size. In 1969 the resulting thresholds were officially adopted, and since then have, for the most part, been updated only for changes in prices.

There has never been a revision of these calculations, and since at least 1990 the poverty line has been the subject of increasing discussion. This concerns a need to define and cost a new set of goods and other special needs—like child care and health care—representative of contemporary US families. It also concerns just where the threshold between poor and not poor should be set. A number of influential proposals have been put forward, including most notably those published in 1995 by a panel of experts appointed by the National Academy of Sciences/National Research Council at the request of a Congressional Committee. This Panel also made specific recommendations for an annual updating of expenditures on food, clothing, and shelter to reflect patterns among the general population. The major conclusion of the National Research Council report edited by Citro and Michael that

> the current measure needs to be revised: it no longer provides an
> accurate picture of the differences in the extent of economic poverty
> among population groups or geographic areas of the country, nor an
> accurate picture of trends over time. The current measure has remained
> virtually unchanged over the past 30 years. Yet during that time, there
> have been marked changes in the nation's economy and society and in
> public policies that have affected families' economic well-being, which
> are not reflected in the measure (Citro and Michael, 1995 p.1)

continues to be at the heart of US debate as reflected most recently in a June 2004 workshop organized by the National Academy to discuss, among other things, the ongoing research at the US Census Bureau on experimental measures of poverty.

In sum, in spite of there being an 'official' poverty line in the United States there is little consensus on what poverty means, and there is no official target to reduce or eliminate child poverty. In contrast, an official target to eliminate child poverty was announced in Canada. In 1989 an all party resolution committed the government to "seek to eliminate child poverty by the year 2000."[7] But this commitment was not backed up by a clear definition of what poverty meant, nor clear indicators to measure progress.

The Canadian statistical agency has a long history of publishing at least two different measures of what it refers to as "low income," and during the 1990s advocacy groups sought to use these indicators to gauge progress made in reducing child poverty. These include an income based measure with a threshold defined as the level of income at which families can be expected to spend one-fifth more than the average family on food, shelter, clothing. This threshold was derived from a survey of family expenditures. It has been produced since 1967 and is updated roughly every five years as new surveys on family expenditures become available. The other indicator is simply one half of the income of the typical individual, "typical" being taken to be the median income (the level of income that half the population is above and half below). This is updated annually according to changes in median incomes, and has been published since 1991.

In spite of a high quality and timely series of statistics there was no official recognition of either of these measures by the government as the basis to gauge progress

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[7] Government of Canada, *Hansard*, November 24, 1989. The references for the following discussion are Skuterud, Frenette and Poon (2004) and Shillington (1999).

in attaining its child poverty reduction target. The attempt of the broader community to make such an association in fact led to a public statement by the statistical agency that it should not be viewed as providing this recognition. The statement suggested that it "is through the political process that democratic societies achieve social consensus in domains that are intrinsically judgmental. The exercise of such value judgments is certainly not the proper role of Canada's national statistical agency…" (Fellegi 1997).

In 2003 the government released a new measure of poverty based on the costs of a specific basket of goods including: food, clothing and footwear, shelter, transportation, and other household needs. The specific choices of these goods are meant to represent, as is stated in an official document with respect to the food component, "community standards" of expenditure. Being in poverty would be defined as not having an income level higher than the cost of this basket of goods. It is not clear how this "Market Basket Measure" will be updated through time but the government did state that developing its contents "was a complex and rigorous process that involved substantial consultations nationally and in several provinces." It is also stated that the Market Basket Measure is not an official measure though it is "designed to complement existing low-income measures that are used to help track low-income trends among Canada's children."[8]

In 2000 all three measures indicated about the same child poverty rate, but since this is "the first year for which data have been collected using the Market Basket Measure, it is not possible to say with certainty whether the incidence of low income for children using the Market Basket Measure is higher or lower than in the years prior to

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[8] A summary of the first set of findings from the Canadian Market Basket Measure of Low Income is available at www.hrsdc.gc.ca/en/cs/comm/news/2003/030527.shtml, while the specifics of the construction of the basket are presented in Hatfield (2002). The quotations in this and the following paragraph are taken from these sources.

2000." In sum, in spite of there being an official child poverty reduction target in Canada, there isn't a clear sense of what it means, nor the degree to which progress was made in reaching it.

b. The European Union

In many European countries there appears to have been, particularly at the level of the European Union, an evolution to an accepted definition of "low income," meant to offer an indicator of being "at risk of poverty." This concept uses individual income to measure material living standards and draws the line between the poor and non poor at 60% of the country specific median income. This line evolves annually with movements in median income. An income based indicator of this sort has the particular advantage, important in the EU context, of permitting cross country comparisons.

The rationale for setting the line at 60% of median income, as opposed to some other fraction, is not clear though the issue is discussed in Eurostat Task Force (1998). Bradshaw (2004) states that this threshold "remains entirely arbitrary. The EU decided to adopt 60 per cent of the median because they found that too many of those below 50 percent were students, the self-employed, and farmers" suggesting that this was not in accord with preconceived notions.

This said the EU stresses that this is an indicator of being "at risk of poverty." As such it acknowledges that poverty has more dimensions than just the monetary and must to be judged in relation to other individual and social circumstances. For example, an income level below this threshold may mean very different things in a country providing a wide set of public services than in a country where significant user fees must be paid.

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The discussion of poverty is one element in a much broader discussion of social policy in the European Union, one revolving around the commitments established in March 2000 to reduce "social exclusion." Progress in achieving this goal is monitored by an agreed upon set of indicators and regular country reports through National Action Plans.

The 60% of median low income measure is one of eighteen indicators defined in a comparable way for all member states, which can be supplemented by other indicators specific to each country. These include additional income based measures like the distribution of income, the persistence of low income, the amount by which the typical individual falls below the 60% threshold. But they also include other measures of labour market and social outcomes: the long term unemployment rate, people living in jobless households, early school leavers not in further education, life expectancy at birth, and self perceived health status.[9]

These supplemental indicators may be particularly important in countries where income poverty defined in this relative sense is already low, or where there have been important declines in incomes. As suggested one limitation of the headcount ratio based on a purely relative indicator of low income is that if the incomes of the poor dropped but those for everyone else stayed exactly the same, the fraction of the population considered poor would not change in spite of the fact that the lowest income individuals have clearly suffered. For example, in Sweden—where child poverty rates are among the lowest in the OECD—a government sponsored assessment of the 1990s economic crisis focused on a much broader concept of well being than just monetary income (Palme *et al.* 2003).

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[9] The list of 18 common indicators used by the EU is available at europa.eu.int/comm/employment_social/news/2002/jan/report_ind_en.pdf. For background on their development see Tony Atkinson, Bea Cantillon, Eric Marlier, and Brian Nolan (2002).

In spite of the significant degree of coordination in the development of indicators to measure progress toward social policy goals in the EU the question of priorities is still very much open. Some member countries are finding the plethora of indicators does not offer clear policy directions or illuminate specific priorities. In particular there is not a clear demonstration of priorities toward children, or how the goal to eliminate social exclusion is directed to their concerns, needs, and rights. While the at-risk-of-poverty measure is categorized in a number of ways, including by age, particular priority to the child poverty rate or to other measures of child well being is not strongly evident. The National Action plans of some states do stress the importance of child poverty, but the Commission itself recognizes that "developing a focus on ending child poverty needs to be more of a priority in the coming years" (Commission of the European Communities, 2003 p. 6).[10]

c. The United Kingdom and Ireland

Recent developments in the United Kingdom are distinct from the North American and other European experiences in at least two respects. First, over the course of the last five years or so the government has made the reduction and elimination of child poverty a political priority, with the announcement at the highest levels of clear goals and targets. There is political leadership. Second, this leadership has been backed up by an open yet structured debate on the measurement of poverty leading, over a roughly 18 month period, to the announcement in December of 2003 of a succinct and measurable set of indicators.

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[10] For specific reference to children in the EU see Hoelscher (2004) and for reference to child poverty see also europa.eu.int/comm/employment_social/social_protection_commitee/spc_report_july_2003_en.pdf.

In fact there are many parallels in the UK experience with those of the Republic of Ireland, particularly in terms of the extent of political commitment, though the UK has built upon and extended the Irish approach to measurement and monitoring. To cite the UK example, the commitment to halve child poverty by 2010 and to eliminate it by 2020 begins with the recognition that measures of low income cannot paint a complete picture of poverty: as an official government document states "income needs to be central to any poverty measurement, but … income alone does not provide a wide enough measure…" (Department for Work and Pensions 2003).

Accordingly it is proposed to monitor progress using three related criteria. These are detailed in Department for Work and Pensions (2003). The first, referred to as "absolute low income," is intended to indicate progress in increasing the living standards of the poor relative to when the government came to power. It is measured as 60% of the median income in 1998/99, and is fixed through time being adjusted only for inflation. The second, referred to as "relative low income," is intended to indicate progress in increasing the living standards of the poor relative to the typical individual. It is measured as 60% of the median income in the current year, and as such evolves over time with changes in the income of the typical individual. The third, referred to as "material deprivation," is intended to supplement these measures with direct indicators of the lack of particular goods and services. It is measured from individual responses to survey questions on having and being able to afford a short list of items—11 for adults and nine for children—and a relative income of less than 70% of the median.

These direct indicators of deprivation refer to quality of housing, clothing, and social engagement. "Adult deprivation" is measured on the basis of whether families

have or are able to afford adequate housing (keeping the home adequately warm, in decent state of repair, furniture and electrical goods such as refrigerator or washing machine), certain social activities (a holiday way from home for one week not staying with relatives, having friends or family for a meal once a month), some assets (a small amount to spend on oneself and regular savings) and adequate clothing ("two pairs of all-weather shoes for each adults"). The nine measures of deprivation for children include one measure relating to housing (enough bedrooms for every child over 10 of different sex to have their own room). The remainder deal with social activities and include: a one week family holiday away from home every year, swimming at least once a month, a hobby or leisure activity, friends visiting once every two weeks, leisure equipment, celebrations on special occasions, play group activities at least once a week for pre-school age children, a school trip at least once a term for school aged children.

In sum, eight of the nine child specific items refer to social activities, a single additional item referring to the number of bedrooms in the home per child. There is one question referring to clothing, directed to the footwear of adults, and no questions at all referring to food and nutrition. This small number of items is derived from an analysis of a much broader set with which they are claimed to be highly correlated and perform best at distinguishing the poor from the non poor. It is also claimed that they will be reviewed every "few years."[11]

As such this three-tiered definition builds upon and extends the Irish definition, which relies on a combination of relative income and deprivation. Children are considered poor in Ireland if they live in households with incomes below 70% of the

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[11] The annex to Department for Work and Pensions (2003) makes reference to the exact questions used in developing the measure of material deprivation.

median and lacking in at least one of eight items considered as indicating deprivation. The latter involve not having: new clothes; a meal with meat, fish or chicken every second day; a warm waterproof overcoat; two pairs of strong shoes; a roast or its equivalent once a week. They also involve having: debt problems from ordinary living expenses; a day over a two week period without a substantial meal; going without heating during the last year through lack of money. These indicators do not necessarily refer to the specific situation of children or their social engagement.[12]

Pegging the definition on the signal from in effect one indicator of deprivation has implied, in the context of economic growth, rapid progress in reducing child poverty, to the point that targets have had to be revised to be more ambitious. Between 1997 and 2001 the percentage of children in consistent poverty has fallen from 15% to 6%, and the current target is to reduce child poverty below 2% by 2007 (Nolan 2004). But this does not put into focus the entire experience of children relative to others in the community.

3. Principles for best practice

The first challenge in attaining the kind of ideal set out in Article 27 of the Convention on the Rights of the Child deals with definition and measurement. Effective public policy to eliminate child poverty must begin with a clear understanding of what poverty means and how it how it should be measured. Economic theory and statistical practice offer only partial guidance in doing this, leaving a significant gap to be bridged by political

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[12] More background on this approach to poverty measurement with specific reference to Ireland is available in Brian Nolan and Christopher T. Whelan (1996) and at
www.combatpoverty.ie/downloads/publications/FactSheets/Factsheet_MeasuringPoverty.pdf

pragmaticism. The lessons of theory, statistics, and actual public policy in the OECD suggest the following six principles as a guide for best practice.[13]

First, avoid unnecessary complexity. Attempts to define a full set of life's necessities or a set of indicators to reflect all aspects of well being can be very complicated, especially when the need for updating over time is recognized. In well developed market economies in which the family is the major provider of the material well being of children the use of an income based measure of resources is a good proxy and can avoid complexity. Further, data are available from representative national surveys, and income levels can be measured, compared, and updated with reasonable reliability.

Second, measure material deprivation directly. Income does not capture all dimensions of what it means to be poor, especially when it is measured over a period of time as short as a year. It needs to be complemented by additional indicators, but these should refer to actual consumption of goods and services by children. These will vary from country to country, but should be informed by the Convention on the Rights of the Child to include health and nutrition, clothing, housing, and other goods, services and opportunities necessary for normal physical, mental and social development. At the same time these indicators should be small in number yet indicative, rather than striving to be exhaustive.

Third, draw poverty lines with regard to social norms. Both income and direct measures of deprivation must be tied to the experiences of the typical individual if they are to be consistent with economic theory and indicate, as expressed in the Convention, a

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[13] The wording of some of these principles is the result of conversations with Peter Adamson on a first draft of UNICEF (2005). I thank him for his feedback and acknowledge his contribution.

standard of living adequate for a child's social development. Expressing an income measure as a fraction of median income, and deriving additional indicators by asking children questions about their social engagement are established mechanisms. This said, flexibility is appropriate in drawing the line dividing the poor from the non poor be they below 40, 50, or 60% of median income. Drawing poverty lines at different points may add clarity in understanding both levels and changes in low income.

Fourth, establish a regular monitoring system. All indicators need to be updated regularly, especially income based measures during periods of economic change. Accepted statistical practice suggests that in a growing economy the consumption patterns of the average consumer change sufficiently to merit updating within a five year period, and certainly no longer than a decade. Poverty lines should be updated at similar frequencies. This also implies that data collection and dissemination needs to be designed with an eye to timeliness and sustainability.

Fifth, set both a backstop and a target. A fixed and a moving poverty line can be used in conjunction to on the one hand set a backstop preventing deterioration, and on the other hand a target for progress. Failure to lower poverty according to a fixed line implies that poor children have not reaped any gains from economic growth. Failure to lower it according to a moving poverty line implies that poor children have not reaped proportionately greater gains than others. As such reducing poverty measured by a fixed line is a minimum test of progress during growth, but during periods of economic decline it sets an important backstop. A commitment of this sort during economic decline or recession ensures that children are given priority in the allocation of social resources, and

locks in past progress. Under all conditions poverty measured according to both lines should be lower.

Sixth, offer leadership and build public support for poverty reduction. An operational definition of poverty requires value judgments that reflect a consensus through democratic dialogue. Offer leadership in structuring this debate, and once settled establish goals for progress that are both feasible and credible. Backstops and targets should be set over a time span covering the electoral cycle. Incoming governments should set the child poverty rate prevailing at the time of taking office as a backstop, and use a fixed poverty line to base a commitment that under no circumstances will this rate increase over their electoral mandate. It should also set a target for lowering poverty measured against a moving line. Credibility implies that these goals should be set over the course of the current mandate, not in the distant future for another government.

The first four of these principles recognize important lessons from economic theory, statistical practice, and actual policy developments. Identifying, costing, and updating specific baskets of goods can lead to undue complexity in public policy debates and risks ending in stalemate. In market economies income based measures of poverty are a good starting point, but this is not to say that "low income" should be equated with "poverty." Measuring material and social deprivation with an indicative set of indicators avoids both complexity and the shortcomings of using just annual income. But there is more need in all contexts to base these measurements on the perspective of the child using child based information sources. This is one way to lend children a voice in public policy that concerns them directly. It also must be done in a comparative way relative to prevailing norms and the ability to fully participate in society, as well as requiring

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appropriate updating through time. All of these issues presuppose a credible statistical system to gather and disseminate accurate and timely information.

The last two principles deal with setting goals that somehow embody both the principle that children should be given priority in the conduct of public policy, and that policy should be seen to be credible. Their workings require further comment, and are illustrated schematically in Figures 2 and 3. A hypothetical situation is illustrated in Figure 2 when there is progress in reducing child poverty over two successive electoral mandates either through growth in incomes or changes in public policy. At the onset of the first mandate a government takes the existing poverty rate, measured with reference to the prevailing median income, as a backstop. Poverty rates for children fall according to this fixed poverty line, and according to one measured by a moving poverty line updated annually. At the end of the mandate the new government sets a new, lower, starting point as the backstop is updated. In most democracies this corresponds to a four to five year period, roughly the time frame in which statistical practice suggests the need to account for changes in average consumption patterns. In this way child poverty rates are progressively lowered over the course of successive mandates, as past progress is locked in and more demanding targets set for the future.

Figure 3 illustrates a case in which the backstop becomes binding during periods of economic decline. In the first mandate of this scenario the economy is deteriorating and there would be a tendency for child poverty rates to increase, both with respect to fixed and moving lines. The backstop embodies a commitment that the allocation of resources will be such that the child poverty rate, measured according to the line fixed at the start of the mandate, does not increase. If the actual poverty rate rises above this a

clear signal is being sent that requires policy response. If the government is successful the actual child poverty rate should, in the very least, be no worse during the course of its mandate relative to the norms prevailing at the beginning. In the second mandate when growth returns the new government takes this rate as the starting point. The backstop poverty rate is updated asymmetrically across the scenarios presented in these two figures: progressively ratcheting downward during times of growth, but not increasing during times of recessions. The use of both a fixed and a moving poverty in setting public policy objectives embodies the ideal of children having priority in a way that prevents increases in child poverty and tips the focus of public policy to progressively reducing it over a succession of electoral mandates.

Credibility is the outcome of public consultation, leadership, and the setting of feasible targets over a time frame in which governments are accountable. But it is also the outcome of a process or understanding that is long-lived and extends across the mandates of successive governments.

4. Child poverty and changes in child poverty

The specifics of how these six principles are actually put into practice—how poverty is defined, how specific targets are set, and how commitment and credibility are developed and maintained—is a task that will be different for each government. But to support this there is merit in undertaking a comparative overview of child poverty rates in the OECD countries to broadly chart its dimensions, to illustrate the scope for change, and to suggest a range for feasible targets. As such these principles are used in what follows to develop a

working definition for a cross country comparison of child poverty and changes in child poverty in the rich countries.

First, the focus is income. Using income as the resource avoids complexity and offers the best measuring rod to gauge the situation of children across countries and over time. In the analysis that follows income is taken to be household income from all sources after taxes and transfers: the household's disposable income. Individuals are the unit of analysis, resources are assumed to be shared equally within the household, and the square root of household size is used as the equivalence scale. These assumptions are in accord with international comparative research on income as for example in Expert Group on Household Income Statistics (2001) and the Luxembourg Income Study (LIS). Complementary measures of capabilities and well-being will vary from country to country, which make comparisons difficult and beyond the scope of available data.

Second, the focus is on the standing of children relative to the typical individual in the country, defined as the person with median income. For the most part children in low income are defined to be those with access to less than 50% of median income, but when examining changes over time a number of different thresholds are used. The relevance of this for how children perceive and are affected by poverty is still an open question. For example, the median income is that of the median individual, not the median child. Further, comparisons are made at the national level, not the smaller geographic community or region in which the child lives, or a broader community of nation states. Finally, as already stressed other measures of deprivation based upon the child's perspective are needed to complete this picture and address the issue of "poverty" as opposed to "low income." This definition also leaves open questions about non-cash

transfers from the state and the provision of public services, both of which impact on the lives of children and are used in different degrees across the OECD countries. Garfinkel, Rainwater and Smeeding (2004) offer an account of non-cash transfers, suggesting they play an important role in determining differences in poverty rates across a number of these countries.

Third, the focus is on progress made since the early 1990s, when the Convention on the Rights of the Child came into effect.[14] As such the use of a backstop poverty rate and its updating is not done over the electoral mandate of any particular government, but puts the emphasis on the commitment that governments made collectively. The principle being put forth is that things should never be worse than the situation prevailing when the original commitment to children was made, measured by a fixed low income line, and things should be better for children relative to the typical individual, as measured by a moving low income line. Therefore as a backstop a low income line defined as 50% of the median at the time the Convention came into force is used, adjusted only for inflation. This measure is used to put a floor on the material living standards of children at the level prevailing in the early 1990s.

a. Child poverty rates

Figure 4 illustrates that child poverty rates vary by more than a factor of ten across the OECD countries, the fraction of children living in low income ranging from less than

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[14] The Convention was adopted and opened for signature, ratification and accession by the UN General Assembly on 20 November 1989. It entered into force on September 2, 1990 and has been ratified by 191 countries UNICEF (2002, p. 57). For practical purposes the starting point for the analysis is 1990 or the closest year before 1990 for which data is available. The most recently available data at the time the analysis in this paper was undertaken is used as the end point. For the most part this is 2000, but in some cases slightly earlier.

three percent to over 20 and almost 30%. The proportion of poor children is less than five percent in only four countries—Denmark, Finland, Norway and Sweden—but at the same time more than 10% in 15 of the 26 countries, and higher than 20% in the United States and Mexico.

Further, child poverty rates are higher than the rates for the general population in all but five OECD countries. In Canada and Italy 15 to 16% of children are poor, while 11 to about 13% of the general population are in the same situation, a gap of over three percentage points. A similar gap exists in Luxembourg, and it approaches five and even six percentage points in the United States and New Zealand. In Greece, Denmark, Sweden, Finland, and Norway children are less likely to be poor than an average member of the population. But Table 2 illustrates that while these differences are sometimes significant, as in Finland and Norway, they are also sometimes slender, as in Greece. Many children face the risk of living in poverty, and many children face a risk higher than others in their society.

At least five cautions are needed in interpreting these numbers. The first is the obvious point that they are all relative measures based upon poverty lines drawn from national median incomes, and therefore refer to different "absolute" standards of living. Though all of these countries are part of a select group of rich countries median incomes vary a good deal between them, implying for example that the poverty line in the United States is higher than that in Poland or Mexico. Low income children in one country could have a much higher relative standard of living if they lived in another. (The actual low income thresholds used in the derivation of these figures are presented in Appendix Table A-1.) There may in some cases be good reason to argue that the concept of community

used in making comparisons of this sort should be broader and extend beyond national boundaries. Indeed, Corak, Tamm, and Fertig (2005) point out that this argument has historically had particular relevance in Germany with the integration of the East and West. Before unification East Germans were much more likely to gauge their well-being relative to the West than to the typical incomes of their co-citizens. This issue will also likely have increasing resonance in the European Union as the notion of community and governance changes. But the focus on relative poverty defined according to national median incomes reflects the fact that children must live and participate in their own societies, and that the responsibility for public policy towards the poor remains very much within national boundaries.

Second, these estimates are derived from surveys of national populations and therefore are subject to statistical uncertainty. The exact degree will vary from country to country, but very roughly could be taken to be between one to two percentage points. This would imply that the actual child poverty rate in Austria, to take a country in the very middle of Figure 4 as an example, could reasonably be between 8 and 12 percent and it accordingly could as legitimately be ranked ninth behind Belgium as it could 13th just ahead of Greece.[15] As such, the rankings in the figure are not exact and the specifics are likely not terribly informative. All of the countries listed in Figure 4 from Greece to Italy have, statistically speaking, about the same child poverty rate: in the neighbourhood of 15%. It is, however, fair to say that Figure 4 suggests these OECD countries fall into four broad groupings: countries with poverty rates less than 5%; countries with rates

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[15] For a listing of the standard errors associated with many of the countries in Figure 4 see the information provided by the Luxembourg Income Study at www.lisproject.org/keyfigures/standarderrors.htm.

between about 5 and 10%; those higher than 10% and less than 20%; and two with rates in the neighbourhood of 20% or more.

The third caution relates to the possibility that the results may be sensitive to the equivalence scale used, this applies particularly to the information in Table 2. However, it should be noted that this information is presented in a conservative fashion. The comparison being made is between children, and the entire population rather than between children and just the adult population. Where this table indicates child poverty rates greater than overall population it is very likely that the difference is even greater if the comparison consisted of just adults. This said other equivalence scales will imply a different composition of the poor and may lead to different results for some countries.

The fourth caution deals with the fact that in order to develop this list two different data sources are relied upon. The first is the Luxembourg Income Study (LIS), an international data archive and research network directed to the comparative analysis of income in the OECD. LIS relies upon the cooperation of national statistical agencies to provide up to date versions of nationally representative income surveys of households and individuals. It undertakes a recoding of some information to ensure comparability in definitions and concepts, publishes statistics of broad interest, and makes micro data files accessible to researchers in a way that respects respondent confidentiality. The second source is Mira d'Ercole and Förster (2005). These poverty rates are based on calculations performed by a network of international consultants using nationally representative data sources and coordinated by the OECD. Both LIS and the OECD report using the same methods and definitions with respect to the measurement of income, the unit of analysis, and equivalence scales. Figure 4 is based upon the most recently available data from each

source, or the most reliable source when in a couple of cases there are acknowledged reasons to question reliability.[16] The need to use both sources stems from the fact that not all national statistical agencies provide data to LIS or provide timely data. The comparability of these two sources is examined along a number of dimensions in Appendix Tables A-2, A-3 and A-4, which suggest that for the most part the estimates are within the range of statistical uncertainty and that they show the same direction of change.

The final caution has to do with the sensitivity of the calculations to the particular low income threshold used to identify the poor: one-half of the median individual income.[17] A complete picture of low income cannot be painted with a single statistic. It makes a good deal of sense for policy makers to be aware of the entire income distribution. This can be depicted for the lower half by using several poverty lines. Table 3 offers a series of child poverty rates for 15 of the 26 countries for which micro data was available. The thresholds vary from 30% to 70% of the median income, which encompass the range in current policy discourse.

At one extreme child poverty is virtually non-existent when the line is drawn as low as 30% of the median, but this is not universally the case. In Mexico close to 14% of children are still poor according to this threshold, in Italy and the United States more than 5%, and in the Netherlands almost 4%. These countries continue to have a non-trivial proportion of children with very low relative incomes. Seven of 15 countries have child

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[16] There are two exceptions to this. The information for Australia is provided by the Social Policy Research Centre, University of New South Wales with the assistance of Bruce Bradbury, and that for France is from special tabulations provided by the Direction des Statistiques Démographiques et Sociales of INSEE with the assistance of P. Chevalier and also Christine Bruniaux of the Conseil de l'Emploi et de la Cohésion sociale.

[17] The median is calculated using individual incomes that account for the equivalence scale.

poverty rates lower than 10% using 50% of the median, but even in these countries a large fraction of children hover just above this threshold. This is evidenced by the fact that child poverty rates more than double for low poverty rate countries like Finland, Norway, Sweden in moving from a 50 to a 60% cut-off. The increase is also important for many high child poverty rate countries like Poland, Canada, the United Kingdom, and Italy. With a poverty line of 60% of median income their poverty rates are all above 20%. Only three countries have child poverty rates below one-in-ten when the threshold is set at this level. With a line at 70% there is no country with a rate below 10%, and all but three are above 20% with six higher than 30%.

b. Changes in child poverty rates

Figure 5 charts changes in child poverty rates between about the end of the 1980s and early 1990s, just before or around the time the Convention came into effect, and the late 1990s and early 2000s, roughly a decade later. In 16 of the 24 countries featured child poverty rates have risen by more than one percentage point, and in only three—the United Kingdom, the United States, and Norway—has there been a statistically significant fall. Of these only Norway began the 1990s with relatively low child poverty rates. At the other extreme child poverty rates rose by about four or more percentage points in Belgium, Luxembourg, the Czech Republic, and Poland. The experience in the majority of OECD countries suggests that the relative economic situation of low income children has deteriorated.

A more refined picture of these changes is offered in Table 4 and illustrated in Figure 6, offering changes in child poverty rates using both a moving and a fixed poverty

line for 14 countries for which access to the micro data to undertake the calculations was available. Among the countries experiencing increases in child poverty rates according to a moving poverty line four can be said to have actually undergone the type of change depicted hypothetically in Figure 3. In Mexico, Italy, Hungary, and to a lesser extent Germany the poverty measured against both a moving and a fixed threshold increased significantly. These are examples of cases in which a backstop was not set on child poverty rates so that by the end of the 1990s it was higher even by the standards prevailing a decade earlier when the Convention came into force. In the face of turbulent economic changes that saw either very little growth in median incomes (as in Germany) or significant declines (as in all three of the remaining countries) children lost ground relative to better times in the past, but also relative to prevailing income levels. Like others in the population their standard of living declined, but the burden of economic change also fell disproportionately upon them.

In Belgium, the Netherlands, and to a lesser extent Sweden the situation was slightly different, though still can be understood in terms of Figure 3. Median incomes increased in these countries, but this was not reflected in lower child poverty rates. The backstop was respected in that children maintained their standard of living relative to the early 1990s. But they experienced none of the benefits in income growth, losing ground relative to the median. Poverty rates according to a moving line rose.

Only in Norway, the United States, and the United Kingdom can it be said that the type of scenario depicted in Figure 2 played out since the Convention came in to force, with child poverty rates falling according to both indicators.

c. Setting feasible targets

The reasons for these changes require much more detailed study and reflect the influences of families, labour markets, and government policy on the material situation of children. These issues are discussed in Chen and Corak (2005), but it is important to note that families and labour markets are limited in their capacity to lower child poverty rates below 10%. Figure 7 contrasts the child poverty rates used in Figure 4, those based on household disposable income, with rates defined on the basis of market incomes (before taxes and transfers). Child poverty rates are above 10% in 20 of the 21 countries listed in Figure 7 and above 20% in eight of them. Switzerland is the only country with a child poverty rate based on market incomes that is lower than 10%.

This said, the difference between low income rates before and after taxes and transfers should not be taken as an assessment of the impact of tax/transfer policy on children. This is a very simplistic description that takes no account of the behavioural impact of these policies, nor does it account for non-cash transfers and the provision of other public goods. Corak, Lietz and Sutherland (2005) examine government budgets and their impact on child poverty rates in much more detail, and note, as Figure 7 suggests, that the very wide range in poverty rates children face in these rich countries has something important to do government tax and spending decisions. Overall poverty rates resulting form market incomes vary by roughly a factor of three, from about 10% to about 30%. But after taxes and transfers they are much more differentiated, varying by a factor of nine, from around 3% to 28%.

One representation of the relationship between child poverty rates and government budgetary decisions is depicted in Figure 8, which contrasts poverty rates

with the percentage of GDP devoted to family and other related social benefits. These include government expenditures on family allowances, disability and sickness benefits, formal day care provision, unemployment insurance, employment promotion, and other forms of social assistance.[18] The figure shows that the greater the proportion of GDP directed to these areas, the lower the child poverty rates. In no country devoting 10% or more of GDP is the low income among children above 10%; in no country devoting less than 5% is it below about 15% or so.[19]

This relationship should not be taken as simply reflecting a truism that countries redistributing more of their national income will have more equal post tax and transfer income distributions, and therefore a smaller proportion of the population below a particular fraction of the median income. First, there is a good deal of variation in outcomes between the two extremes. For example, 10 of 26 countries devote between 7 to 10% of GDP to social transfers but their low income rates of children vary by a factor of more than five, from lows of 3.4% and 7.3% in Norway and France to over 15% in the UK and New Zealand. Second, and relatedly, there is a choice to be made between directing spending to these types of benefits or to other types addressed to the needs of other population groups. In some large measure the relationship between social

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[18] The source of these data is the provisional version of OECD (2004), Social Expenditures Database, available at www.oecd.org/els/social/expenditure. These data do not include expenditures on education and health as they are not directed in the first instance to income security. More detail on the concepts and content of this information is available in OECD, "20 Years of Social Expenditure: the OECD Database," Paris: OECD.

[19] The single possible exception to this is Japan with a child poverty rate of 14.3% and less than 5% of GDP devoted to these expenditures. But in this case there might be an understatement of social spending as a certain amount of social support is provided directly by employers. See Bradshaw and Finch (2002) on this point.

expenditures and child poverty depends not only on the level of government support, but also on how it is structured and delivered.

All this is to suggest that in countries with moderate shares of GDP devoted to family and related expenditures there is a good deal of variation in child low income rates and there is greatest potential for reducing them below 10%. Countries spending about 7 to 7½ percent of GDP on family and related benefits but with child poverty rates above 10% include: Australia, the United Kingdom, Austria, Germany, New Zealand, and Poland. Attaining a target of less than one-in-ten children in poverty is something these countries might give consideration. In countries with lower rates of spending attaining this target may involve increases in the proportion of support directed to children. Some countries with child poverty rates between 5 and 10% spend similar proportions of GDP as others with rates below 5%. Luxembourg, France, the Netherlands, and Belgium could strive to lower child poverty rates below one-in-twenty without significant overall increases in spending.

These suggestions, are meant to be indicative only. The extent to which they represent feasible goals presupposes an understanding both of how labour markets, families, and social policy interact to determine child outcomes, and an appreciation of the priorities and trade-offs actually embedded in government budgets. The latter are in part discussed in Corak, Lietz and Sutherland (2005) using a number of different measures of social spending. While the information in Figure 8 is certainly suggestive of feasible goals, it is only a starting point and requires reflection within each national context, one that recognizes both broader dimensions of poverty than just income and a broader set of policies than just income transfers.

5. Conclusion

Articles 4 and 27 of the Convention on the Rights of the Child together establish the elimination of child poverty as a policy commitment that governments in both rich and poor countries should take as a top priority. Taking top priority does not mean that child poverty can be eliminated instantly. It is recognized that social and economic rights sometimes need to be realized progressively as the understanding of issues evolves, and as appropriate and effective interventions are uncovered and put into place. But this also does not mean that the commitment to eliminate child poverty is always one for tomorrow. Rather there should be progressive movement to lower and lower rates of child poverty as the ideal that children having first call on social resources becomes entrenched in discourse and decisions.

The analysis in this paper finds that reality is far from this ideal. First, child poverty rates vary by more than a factor of ten across the OECD, from less than three percent to over 20 and almost 30%. These countries fall into four broad groups, those with child poverty rates less than 5%, those with higher rates but still less than 10%, those with rates higher than 10% and as high as 20%, and finally two countries with more than one-in-five children being poor. Such variation creates at least the presumption that there is nothing inevitable about the level of child poverty in a given country. All OECD countries operate broadly similar free-market economic systems, and their widely differing child poverty rates reflect different policies interacting with labour market and social institutions. Indeed, poverty rates based upon disposable (after tax – after transfer) incomes vary much more than those calculated from solely market incomes.

Second, in the strong majority of countries for which reliable data is available child poverty rates, far from progressively declining, have actually gone up since the early 1990s when the Convention on the Rights of the Child first came into force. In 16 of 24 OECD countries the child poverty rate at the end of the 1990s was higher than at the beginning, and in only three countries has it declined to a measurable degree. Though the specific reasons for this trend are not addressed it is not one suggesting outright that children are a top public policy priority.

There are at least three practical challenges that might stand in the way of this being so: lack of clarity in a policy relevant definition of poverty; lack of understanding in how families and labour markets work to determine poverty rates; and lack of understanding of the priorities embedded in government tax and transfer programs as well as their effectiveness in lowering poverty rates. The major objective of this paper is to address the first issue, that having to due with definition and measurement. The first step in eliminating child poverty requires governments to clearly define and measure what it means for a child to be poor. Without this credible targets cannot be set and progress cannot be monitored. This is only a first step, but an important one that raises difficulties even for the most committed public policy maker.

Drawing from economic theory, accepted statistical practice, and a review of actual country experiences the questions that must be answered are clarified, and a set of principles to serve as a guide in addressing them stated. A definition of poverty requires the definition and measurement of the resources determining well-being; the setting of a threshold distinguishing the poor from the non-poor; and a meaningful count of the poor. Theory and statistical practice offer some but not complete guidance so that value

judgments and practicalities need to bridge the gap. In all aspects of these three issues there is a need to recognize the particular concerns of children and to tilt information gathering toward surveys that explicitly recognize their situation.

Theory, statistical practice and actual public policy debates in the OECD suggest the following six principles to guide the formulation of a definition: (1) avoid unnecessary complexity by using an income based measure of resources; (2) complement this by measuring material deprivation directly using a small set of indicators; (3) draw poverty lines with regard to social norms; (4) establish a regular monitoring system and update poverty lines within a five year period; (5) set a both a backstop and a target by using fixed and moving poverty lines; and (6) offer leadership and build public support for poverty reduction.

The specifics of how these principles are put into practice will vary from country to country but in all cases they should be used to develop feasible and credible targets for poverty reduction over the course of a government's electoral mandate. In many countries with poverty rates above 10% the level of social expenditure on family related benefits is similar to other countries where the child poverty rate is less than 10%. For these countries lowering the fraction of child who are income poor below one-in-ten might be a goal not requiring increases in spending, but a restructuring of priorities or delivery. In a similar way other countries could reasonably strive to lower child poverty rates below 5%. But these targets are only suggestive and require governments to not only articulate an appropriate level but also to understand how families, labour markets, and social policy interact in their national context. Feasible and credible targets structured to make children a priority over the course of an electoral mandate, and that ratchet

downward to ever more demanding levels with each new government are important first steps in reversing the trend of the past and setting a course for lower child poverty in the future.

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Table 1

Frequencies in the updating of consumption patterns for the calculation of consumer price indices in the OECD countries

Country	Frequency of Updates	Latest Update	Notes
Australia	About every 5 years	2000	
Austria	Every 5 years	2000	
Belgium	Every 7 to 8 years	1995/96	Next revision is planned for 2004.
Canada	Every 4 years	2001	
Czech Republic	About every 5 years	1999	
Denmark	Every 4 to 5 years		
Finland	Every 5 years	2000	
France	Annually		The sample is updated annually to reflect trends in consumer behaviour and the introduction of new products, but the weights are updated over a two year period.
Germany	Every 5 years	2000	
Greece	Every 5 or 6 years		The weights are revised each time a new household budget survey is conducted every five or six years.
Hungary	Every 2 years	2000	Weights are derived from a continuous household expenditure survey, and revised annually. The reference base for the weights is two years prior to the current year.
Iceland	Every year		
Ireland	Every 7 years	1999/00	Every five years beginning in December 2006
Italy	Every year		
Japan	Every 5 years	2000	
Korea	Every 5 years	2000	
Mexico	No fixed schedule, but plans for every two years		Past updates took place in 1980 using 1977 expenditure data, in 1994 using 1989 data, and presumably in 1998 using 1994 expenditure data. Plans exist to update every two years.
Norway	Annually		
Poland	Annually		
Portugal	Annually	2000	
Slovak Republic	Every 5 years	2000	
Spain	Annually	1999/01	Beginning in 2002, weights are to be updated at finest commodity level every five years, with the possibility of annual updates for the major components.
Sweden	Annually	2001	
Switzerland	Annually	1998	The new Consumer Price Index is designed to be reweighted annually, with the first scheduled for 2001.
Turkey	Every 5 years	1994	
United Kingdom	Annually	2002	
United States	Every 2 years	1999/00	Historically weights have been updated every 10 years, but every two years beginning in 2002.

Sources: http://dsbb.imf.org/Applications/web/sddscategorylist/ accessed on May 10, 2004; correspondence with Statistics Belgium, May 11, 2004; in addition for the US http://stats.bls.gov/cpi/cpiupdt.htm accessed on May 11, 2004; for Australia, Australian Bureau of Statistics *A Guide to the Consumer Price Index, 14th Series* (cat. no. 6440.0) accessed May 7, 2004 at http://www.abs.gov.au/; for the United Kingdom http://www.statistics.gov.uk/cci/nugget.asp?id=318 accessed on May 7, 2004. For the ILO recommendations see http://www.ilo.org/public/english/bureau/stat/guides/cpi/index.htm chapter 4.22 accessed on May 7, 2004. Clear information on this issue for Luxembourg and the Netherlands was not available from these sources.

Table 2
Poverty rates for children and the overall population in the OECD

	Year	Low income rate		Difference
		Children	Total population	
1. Countries with child rates more than three percentage points higher than over all rates				
New Zealand[+]	2000/01	16.3	10.4	+ 5.9
Mexico	1998	27.7	22.1	+ 5.6
United States	2000	21.9	17.0	+ 4.9
Poland	1999	12.7	8.6	+ 4.1
Italy	2000	16.6	12.7	+ 3.9
Canada	2000	14.9	11.4	+ 3.5
Luxembourg	2000	9.1	6.0	+ 3.1
2. Countries with child rates one to three percentage points higher than over all rates				
United Kingdom	1999	15.4	12.5	+ 2.9
Australia*	1999/00	14.7		
Netherlands	1999	9.8	7.3	+ 2.5
Czech Republic[+]	2000	6.8	4.4	+ 2.4
Austria	1997	10.2	8.0	+ 2.2
Hungary	1999	8.8	6.7	+ 2.1
Portugal[+]	2000	15.6	13.7	+ 1.9
Spain[+]	1995	13.3	11.5	+ 1.8
Germany	2001	10.2	8.9	+ 1.3
3. Countries with child rates within one percentage point of over all rates				
France*	2000	7.5	7.0	+ 0.5
Ireland[+]	2000	15.7	15.4	+ 0.3
Switzerland[+]	2001	6.8	6.7	+ 0.1
Belgium	1997	7.7	8.0	- 0.3
4. Countries with child rates below over all rates				
Greece[+]	1999	12.4	13.5	- 1.1
Denmark[+]	2000	2.4	4.3	- 1.9
Sweden	2000	4.2	6.5	- 2.3
Finland	2000	2.8	5.4	- 2.6
Norway	2000	3.4	6.4	- 3.0

Source: For those countries labeled with + Mira d'Ercole and Förster (2005). For those labeled with a * the sources are special tabulations as provided by Bruce Bradbury for Australia, the INSEE for France, and from Corak, Fertig, and Tamm (2005) for Germany. For all others Luxembourg Income Study.

Table 3
Child poverty rates for different poverty lines in selected OECD countries

Country	Year	Poverty line (as percent of median income)				
		30	40	50	60	70
Finland	2000	0.4	1.3	2.8	8.0	17.9
Norway	2000	0.9	1.6	3.4	7.5	15.1
Sweden	2000	0.7	1.8	4.2	9.2	17.3
Belgium	1997	1.7	3.2	7.7	13.7	20.2
Hungary	1999	2.6	4.4	8.8	16.9	26.0
Luxembourg	2000	0.5	2.1	9.1	18.3	28.9
Netherlands	1999	3.9	5.9	9.7	14.2	21.2
Austria	1997	3.3	6.5	10.2	17.3	28.5
Germany	2001	2.8	6.2	10.2	16.9	25.2
Poland	1999	2.6	6.1	12.6	21.4	30.5
Canada	2000	3.2	7.7	14.9	23.3	33.0
U.K.	1999	2.5	5.5	15.4	27.0	36.8
Italy	2000	5.8	10.6	16.6	26.5	37.3
U.S.	2000	7.6	14.1	21.9	30.2	37.9
Mexico	1998	13.8	20.9	27.7	35.0	41.7

Source: Calculations by author using Luxembourg Income Study

Table 4
Child poverty rates over time and for fixed and moving poverty lines

| | Year | | Child poverty rate | | | Change in child poverty rate | | Median equivalent income (expressed in country's own currency, adjusted for inflation to year T) | |
| | T-10 | T | Year T-10 using T-10 poverty line | Year T using T-10 poverty line | Year T using T poverty line | Fixed poverty line | Moving poverty line | T-10 | T |
	(1)	(2)	(3)	(4)	(5)	(6)=(4)-(3)	(7)=(5)-(3)	(8)	(9)
Belgium	1988	1997	3.8	4.0	7.7	0.2	3.9	500 847	597 664
Mexico	1989	1998	24.7	33.1	27.7	8.4	3.0	16 655	14 653
Germany	1989	2000	7.6	8.7	10.2	1.1	2.6	16 496*	17 403*
Italy	1991	2000	14.0	18.1	16.6	4.1	2.6	23 713*	22 823*
Hungary	1991	1999	6.9	20.4	8.8	13.5	1.9	706 646	548 997
Netherlands	1991	1999	8.1	8.4	9.7	0.3	1.6	32 203	34 486
Sweden	1992	2000	3.0	2.8	4.2	-0.2	1.2	140 448	153 350
Finland	1991	2000	2.3	3.1	2.8	0.8	0.5	97 454	96 371
Canada	1991	2000	15.3	14.0	14.9	-1.3	-0.4	24 887	25 512
Norway	1991	2000	5.2	2.0	3.4	-3.2	-1.8	172 215	200 641
USA	1991	2000	24.3	17.0	21.9	-7.3	-2.4	20 964	24 093
UK	1991	1999	18.5	7.7	15.4	-10.8	-3.1	9 501	10 877

Note: Countries are ranked by column (7), the change in poverty rates according to a moving poverty line.
* For Italy in thousands of national currency units, for Germany in 2000 Euro.
Source: Calculations by author using Luxembourg Income Study.

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Appendix Table A-1

Low income thresholds used in the derivation of poverty rates for Figure 4

	Luxembourg Income Study		OECD	
	Year	50% of median equivalent income	Year	50% of median equivalent income
Australia				
Austria			1999	104 972
Belgium	1997	298 832		
Canada	2000	12 444		
Czech Republic			2000	60 237
Denmark			2000	83 391
Finland	2000	48 727		
France				
Germany*	2000	8 702	2001	12.8
Greece*			1999	1 359
Hungary	1999	274 499		
Ireland			2000	6 668
Italy*	2000	11 412		
Luxembourg	2000	521 807		
Mexico	1998	7 327		
Netherlands	1999	17 243		
New Zealand			2000/01	10 208
Norway	2000	86 108		
Poland			2000	5 740
Portugal			2000	714 779
Spain			1995	926 809
Sweden	2000	70 224		
Switzerland			2001	22 384
United Kingdom	1999	4 751		
United States	2000	10 482		

Note: All data are expressed in inflation adjusted national currency units for the year indicated except those indicated with *. For Germany information is in Euros, and for Greece and Italy it is in thousands of national currency unit. The source for the OECD data is Annex Table 2 of Mira d'Ercole and Forster (2005). Data for Australia and France are not available.

Appendix Table A-2
A comparison of child poverty rates from two alternative data sources: using most recently available data from each source

| | Luxembourg Income Study | | OECD | | Difference |
	Year	Rate	Year	Rate	
Australia			1998/99	11.6	
Austria	1997	10.2	1999	13.3	
Belgium	1997	7.7			
Canada	2000	14.9			
Czech Republic			2000	6.8	
Denmark	1997	8.7	2000	2.4	
Finland	2000	2.8	2000	3.4	-0.6
France			2000	7.3	
Germany			2001	12.8	
Germany (West)	2000	6.8	2001	13.1	
Greece			1999	12.4	
Hungary	1999	8.8	2001	13.1	
Ireland			2000	15.7	
Italy	2000	16.6	2000	15.7	0.9
Luxembourg	2000	9.1			
Mexico	1998	27.7			
Netherlands	1999	9.8	2000	9.0	
New Zealand			2000/01	16.3	
Norway	2000	3.4	2000	3.6	-0.2
Poland	1999	12.7	2000	9.9	
Portugal			2000	15.6	
Spain			1995	13.3	
Sweden	2000	4.2	2000	3.6	0.6
Switzerland			2001	6.8	
United Kingdom	1999	15.4	2000	16.2	
United States	2000	21.9	2000	21.6	0.3

Source: LIS data are from Luxembourg Income Study, Key Figures, accessed at www.lisproject.org/keyfigures.htm on June 8, 2004. OECD data are from Mira d'Ercole and Förster (2005).

Appendix Table A-3

A comparison of child poverty rates from two alternative data sources: using most recent common year from each source

	Luxembourg Income Study		OECD		Difference
	Year	Rate	Year	Rate	
Australia	1993/94	15.7	1993/94	10.9	4.8
Austria	1994	9.7	1993	7.3	2.4
Belgium					
Canada					
Czech Republic	1996	6.6	1996	5.5	1.1
Denmark	1995	9.5	1994	1.8	7.7
Finland	2000	2.8	2000	3.4	-0.6
France	1994	7.9	1994	7.1	0.8
Germany					
Germany (West)	1994	10.6	1994	10.6	0
Greece					
Hungary	1994	11.4	mid 1990s	10.3	1.1
Ireland	1994	14.6	1994	13.4	1.2
Italy	2000	16.6	2000	15.7	0.9
Luxembourg					
Mexico					
Netherlands	1999	9.8	2000	9.0	0.8
New Zealand					
Norway	2000	3.4	2000	3.6	-0.2
Poland	1995	15.4	1995	16.2	-0.8
Portugal					
Spain	1990	12.2	1990	10.6	1.6
Sweden	2000	4.2	2000	3.6	0.6
Switzerland					
United Kingdom	1995	19.8	1995	17.4	2.4
United States	2000	21.9	2000	21.6	0.3

Source: LIS data are from Luxembourg Income Study, Key Figures, accessed at www.lisproject.org/keyfigures.htm on June 8, 2004. OECD data are from Mira d'Ercole and Förster (2005).

Appendix Table A-4
A comparison of changes in child poverty rates from two alternative data sources

	Luxembourg Income Study			OECD			Direction
	early 1990s[1]	about 2000	change	early 1990s	about 2000	change	of change is same
Australia				15.5	11.6	-3.9	
Austria	4.8	10.2	5.4	7.3	13.3	6.0	yes
Belgium	3.8	7.7	3.9				
Canada	15.3	14.9	-0.4				
Czech Republic				2.6	6.8	4.2	
Denmark	5.0	8.7	3.7	1.8	2.4	0.6	yes
Finland	2.3	2.8	0.5	2.1	3.4	1.3	yes
France				6.1	7.3	1.2	
Germany					12.8		
Germany (West)	4.6	6.8	2.2	6.7	13.1	6.4	yes
Greece				12.7	12.4	-0.3	
Hungary	6.9	8.8	1.9	5.7	13.1	7.4	yes
Ireland				13.3	15.7	2.4	
Italy	14.0	16.6	2.6	13.5	15.7	2.2	yes
Luxembourg	5.0	9.1	4.1				
Mexico	24.7	27.7	3.0				
Netherlands	8.1	9.8	1.7	6.7	9.0	2.3	yes
New Zealand				14.3	16.3	2.0	
Norway	5.2	3.4	-1.8	4.4	3.6	-0.8	yes
Poland	8.4	12.7	4.3	16.2	9.9	-6.3	no
Portugal				12.4	15.6	3.2	
Spain				10.6	13.3	2.7	
Sweden	3.0	4.2	1.2	2.6	3.6	1.0	yes
Switzerland					6.8		
United Kingdom	18.5	15.4	-3.1	17.2	16.2	-1.0	yes
United States	24.3	21.9	-2.4	22.2	21.6	-0.6	yes

1. Austrian data are for 1987, Belgium for 1988, German for 1989, all others for either 1991 or 1992 except Australian which are 1993/94.

Figure 1
Schematic representation of three issues in the derivation of the poverty rate

(1) Resources —$f(y)$
a. definition
b. unit of analysis
c. Equivalence Scale

(3) Aggregation to an index
$$\frac{1}{N} \sum_{i=1}^{n} (Y - y_i)^{\beta}$$

$\beta = 0 \rightarrow$ headcount ratio
$\beta = 1 \rightarrow$ poverty gap index
$\beta = 2 \rightarrow$ poverty gap index squared

(2) Identification of the poor by setting a minimum threshold —Y
a. Reference to general population
    i. Absolute
    ii. Relative
b. Updating over time
    i. Fixed
    ii. Moving

$f(y)$

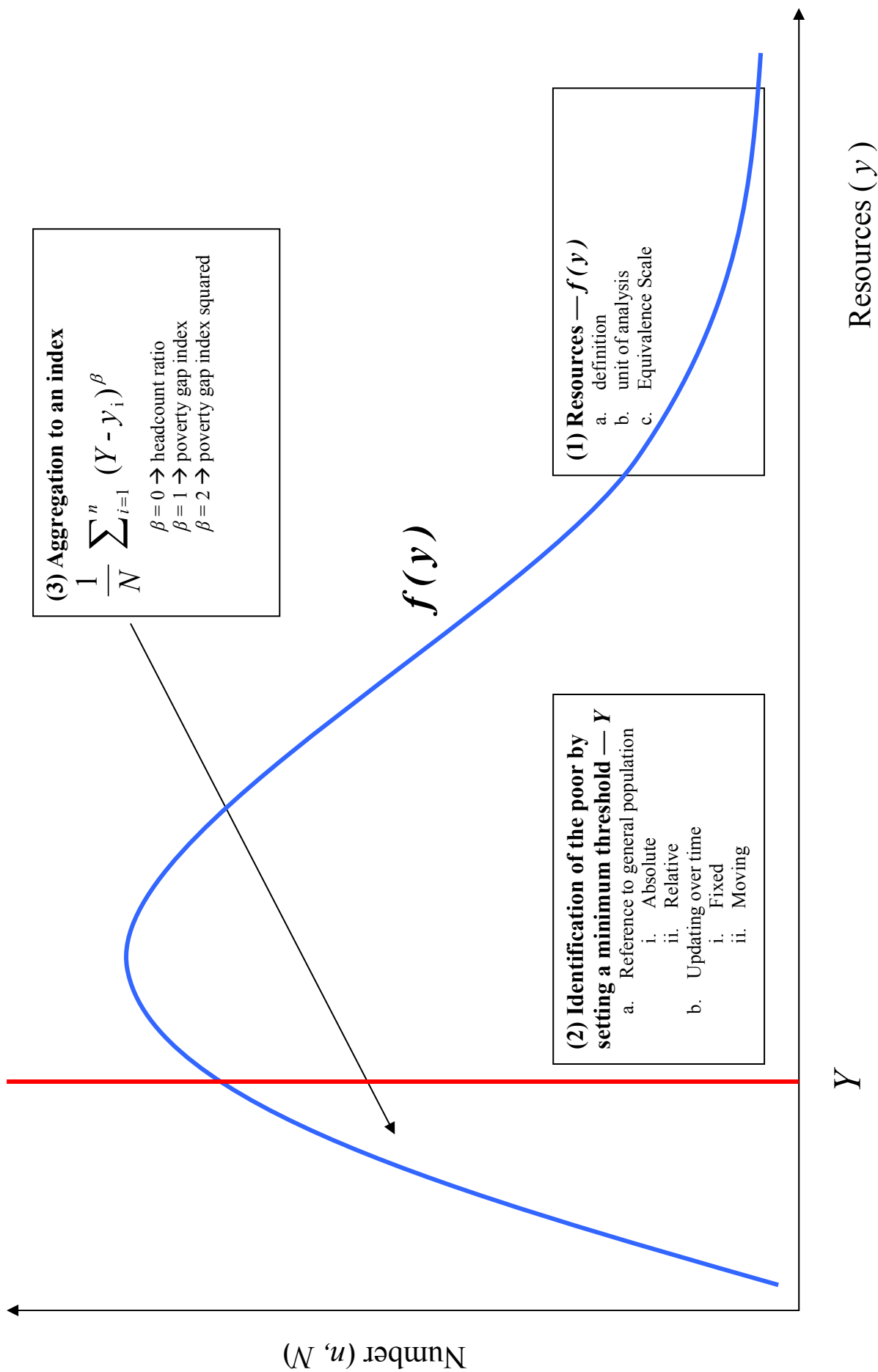Y

Resources (y)

Number (n, N)

59

Figure 2
Lowering child poverty during periods of economic growth using fixed and moving
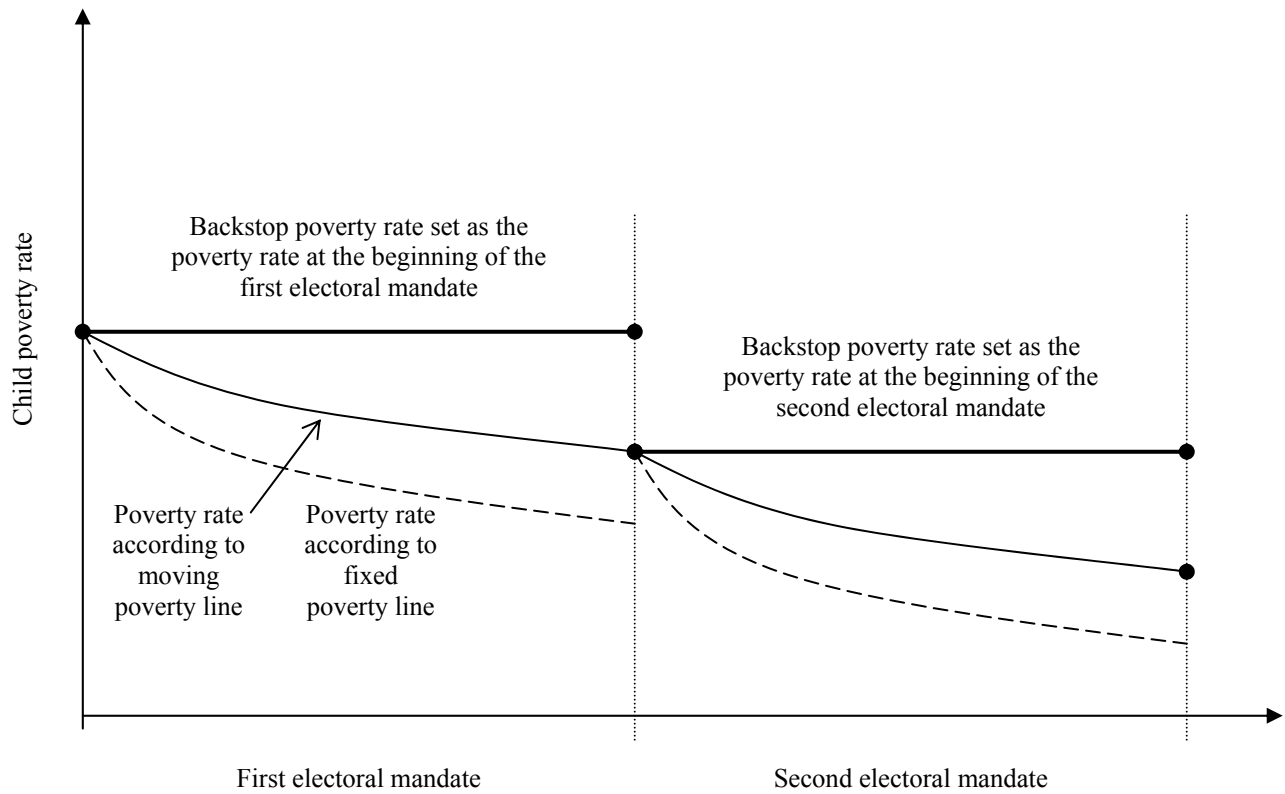poverty lines to establish a backstop and set targets

Figure 3
Preventing a rise in child poverty during periods of economic decline using fixed and moving poverty lines to establish a backstop and set targets

Poverty rate
according to
fixed
poverty line if
the backstop
did not apply

Backstop poverty rate from the first
mandate extends through to the second

Poverty rate
according to
moving
poverty line if
the backstop
did not apply

Backstop poverty
rate set as the
poverty rate at the
beginning of the
electoral mandate
prevents a rise in
actual rate

Child poverty rate

First electoral mandate

Second electoral mandate
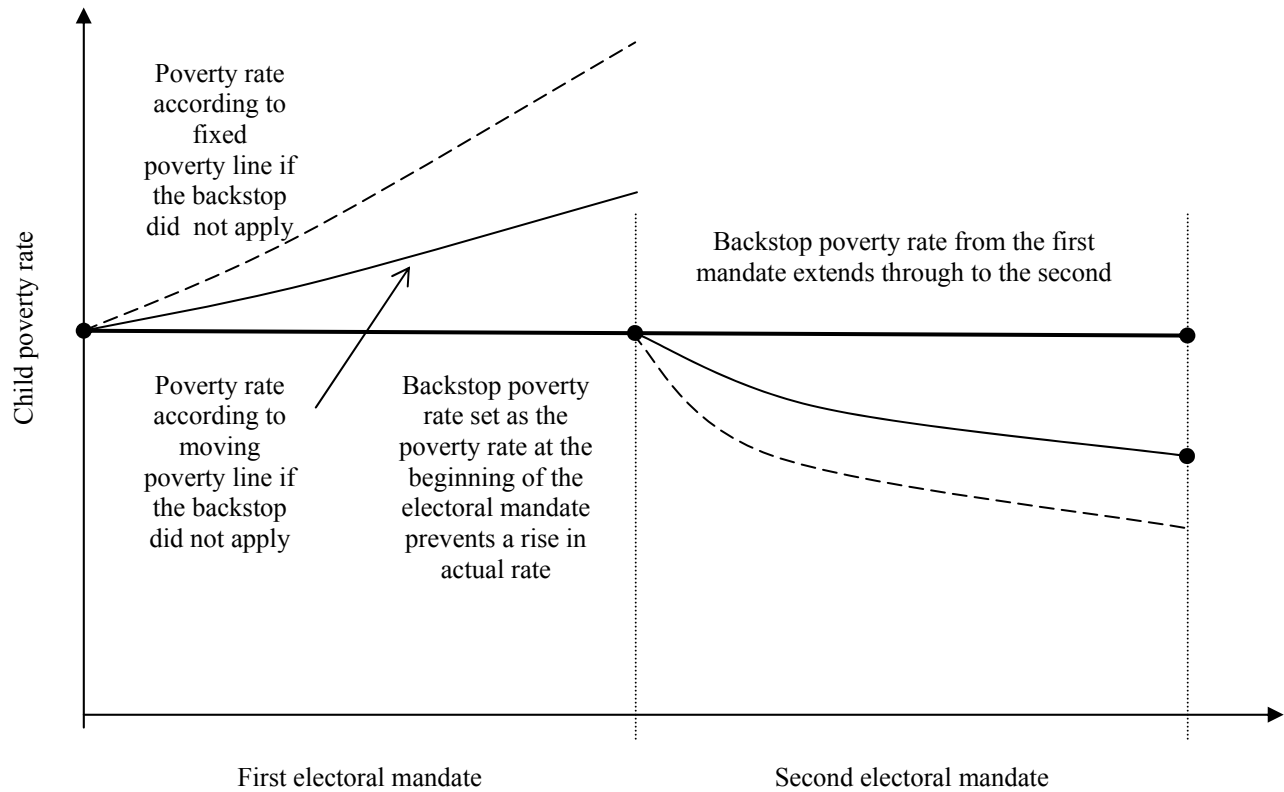
Figure 4
Child poverty rates in the OECD during the late 1990s and early 2000s
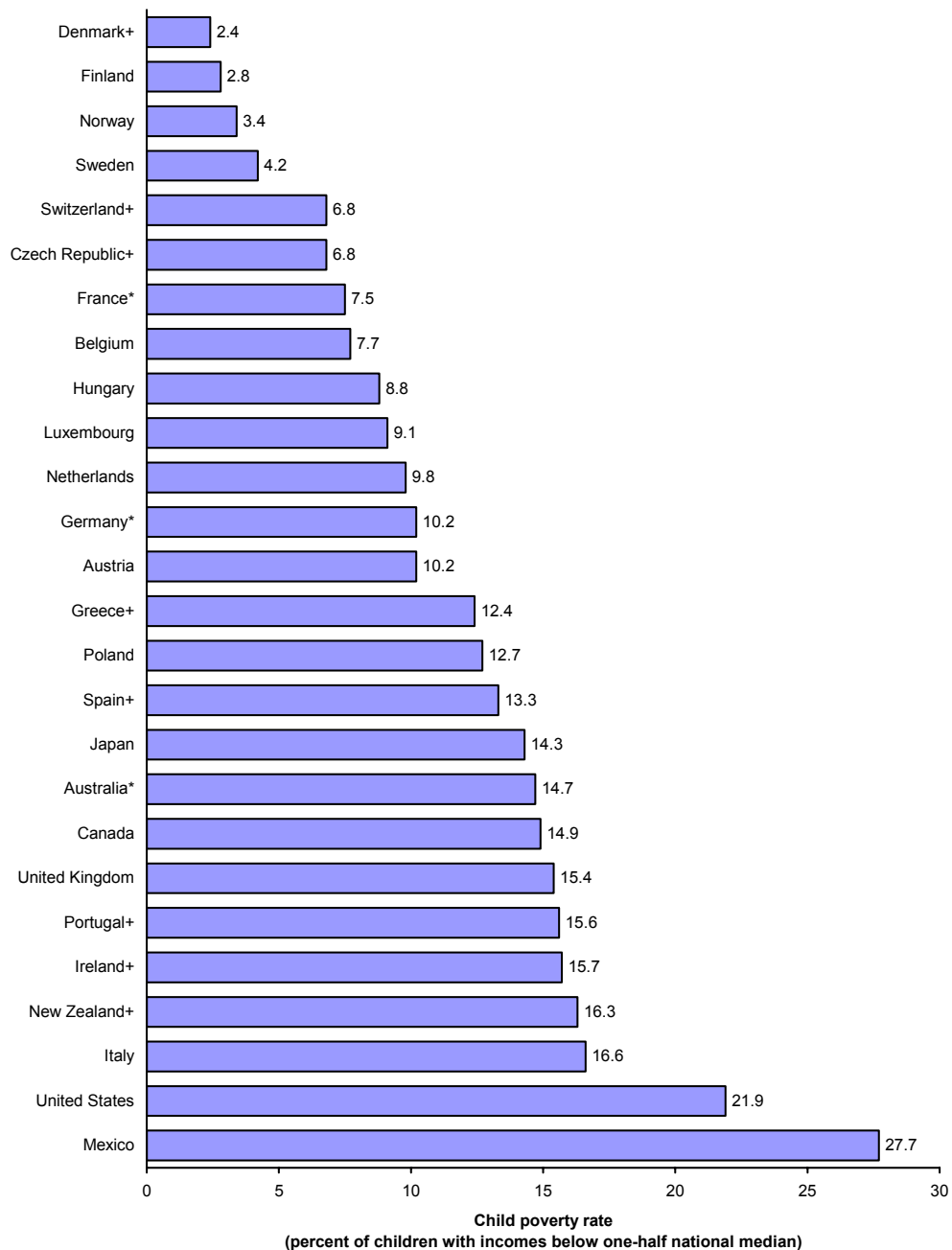
Country	Child poverty rate
Denmark+	2.4
Finland	2.8
Norway	3.4
Sweden	4.2
Switzerland+	6.8
Czech Republic+	6.8
France*	7.5
Belgium	7.7
Hungary	8.8
Luxembourg	9.1
Netherlands	9.8
Germany*	10.2
Austria	10.2
Greece+	12.4
Poland	12.7
Spain+	13.3
Japan	14.3
Australia*	14.7
Canada	14.9
United Kingdom	15.4
Portugal+	15.6
Ireland+	15.7
New Zealand+	16.3
Italy	16.6
United States	21.9
Mexico	27.7

Child poverty rate
(percent of children with incomes below one-half national median)

Source: For those countries labeled with + Mira d'Ercole and Förster (2005). For those labeled with a * the sources are special tabulations as provided by Bruce Bradbury for Australia, the INSEE for France, and from Corak, Fertig, and Tamm (2005) for Germany. For all others Luxembourg Income Study. For the specific reference years, which vary from country to country, see Table 2.
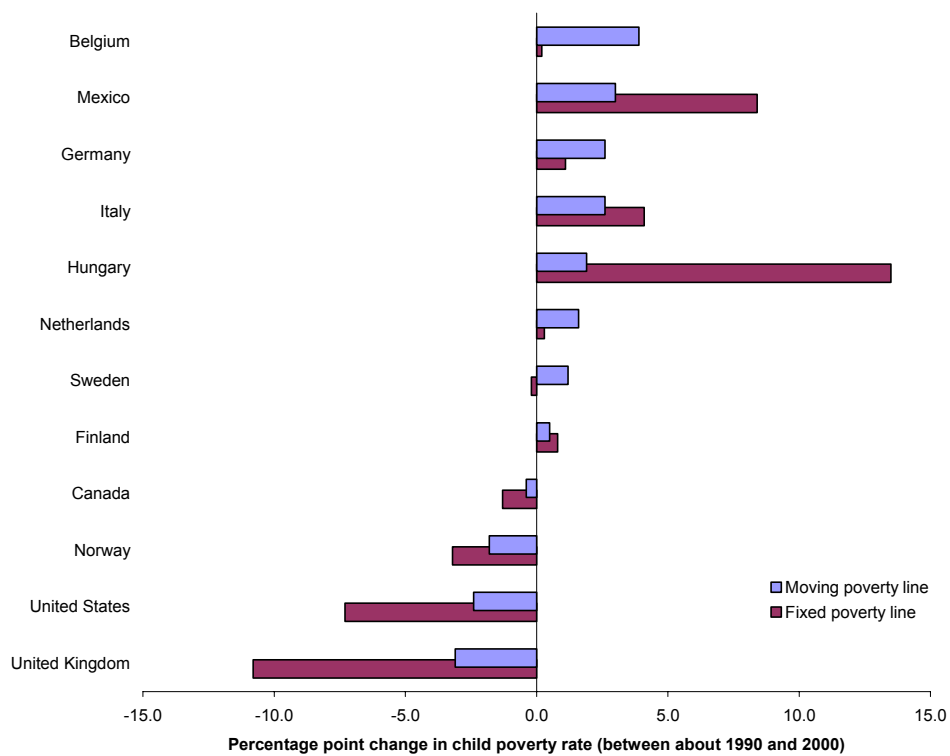
Figure 5
Changes in child low income rates in the OECD using a moving poverty line: between late 1980s/early 1990s and late 1990s/early 2000s
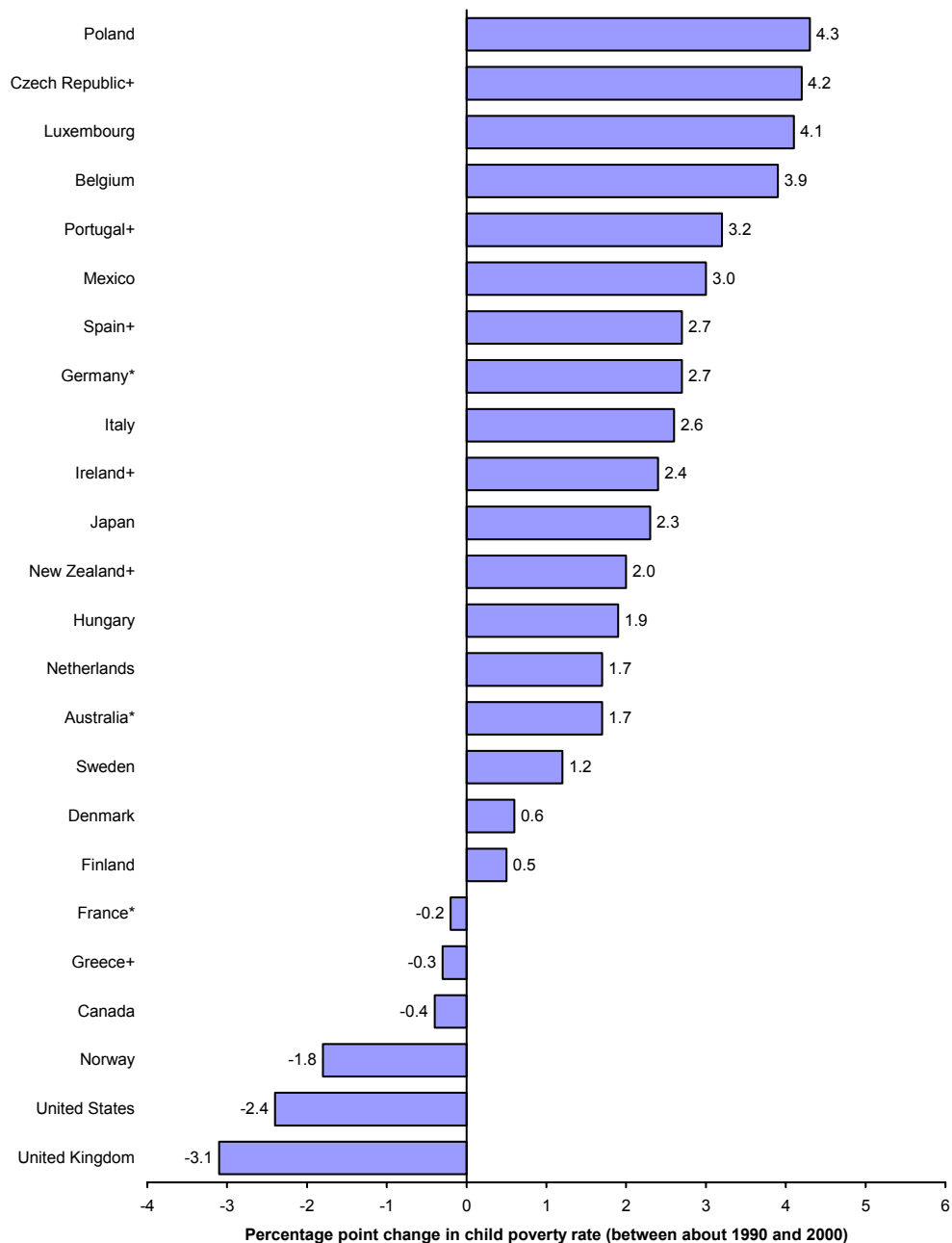
Country	Value
Poland	4.3
Czech Republic+	4.2
Luxembourg	4.1
Belgium	3.9
Portugal+	3.2
Mexico	3.0
Spain+	2.7
Germany*	2.7
Italy	2.6
Ireland+	2.4
Japan	2.3
New Zealand+	2.0
Hungary	1.9
Netherlands	1.7
Australia*	1.7
Sweden	1.2
Denmark	0.6
Finland	0.5
France*	-0.2
Greece+	-0.3
Canada	-0.4
Norway	-1.8
United States	-2.4
United Kingdom	-3.1

Percentage point change in child poverty rate (between about 1990 and 2000)

Source: For those countries labeled with + Mira d'Ercole and Förster (2005). For those labeled with a * the sources are special tabulations as provided by Bruce Bradbury for Australia, the INSEE for France, and from Corak, Fertig, and Tamm (2005) for Germany. For all others Luxembourg Income Study.
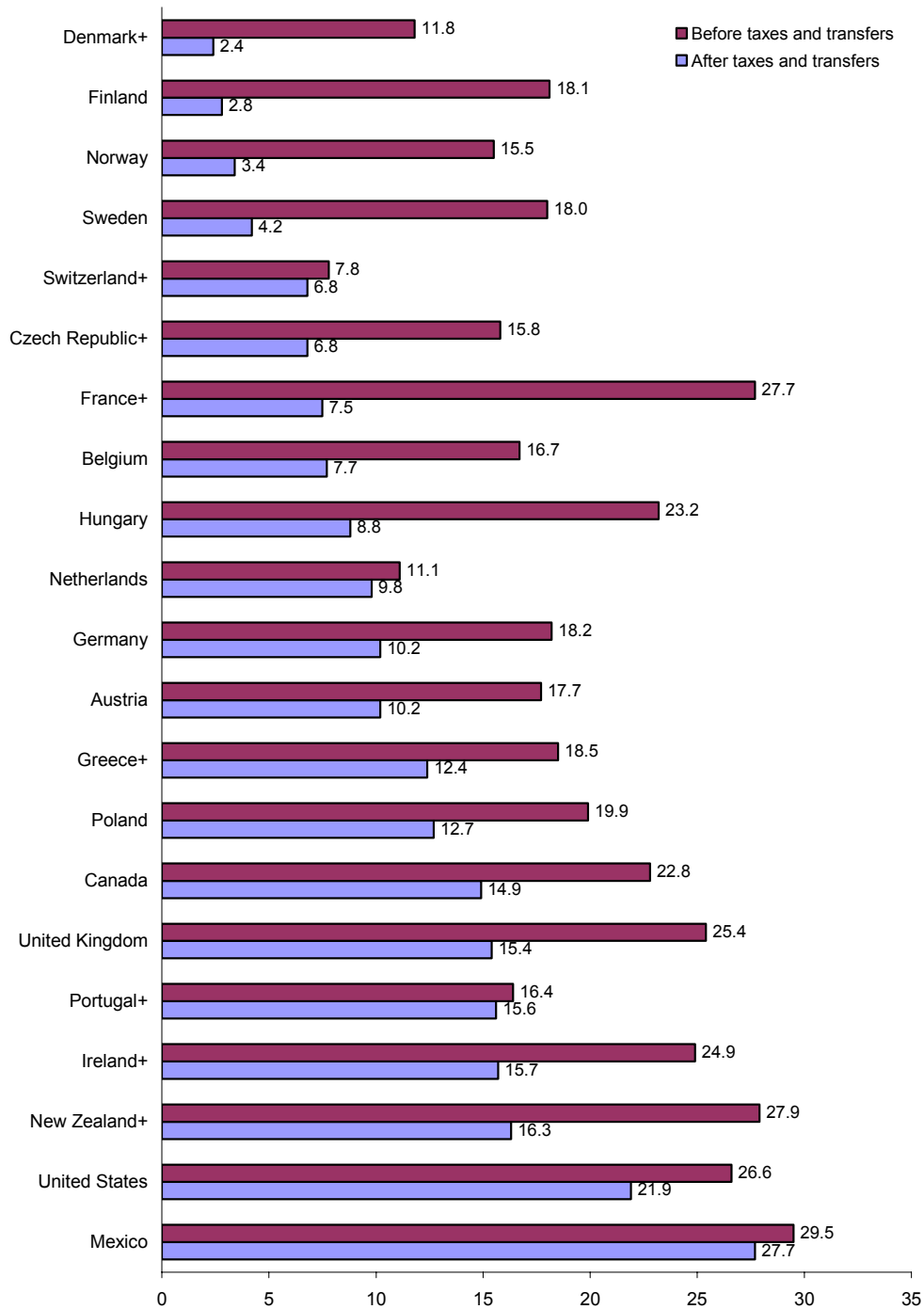
Figure 6
Changes in child poverty rates in selected OECD countries using a moving and a fixed
poverty line: between late 1980s/early 1990s and late 1990s/early 2000s
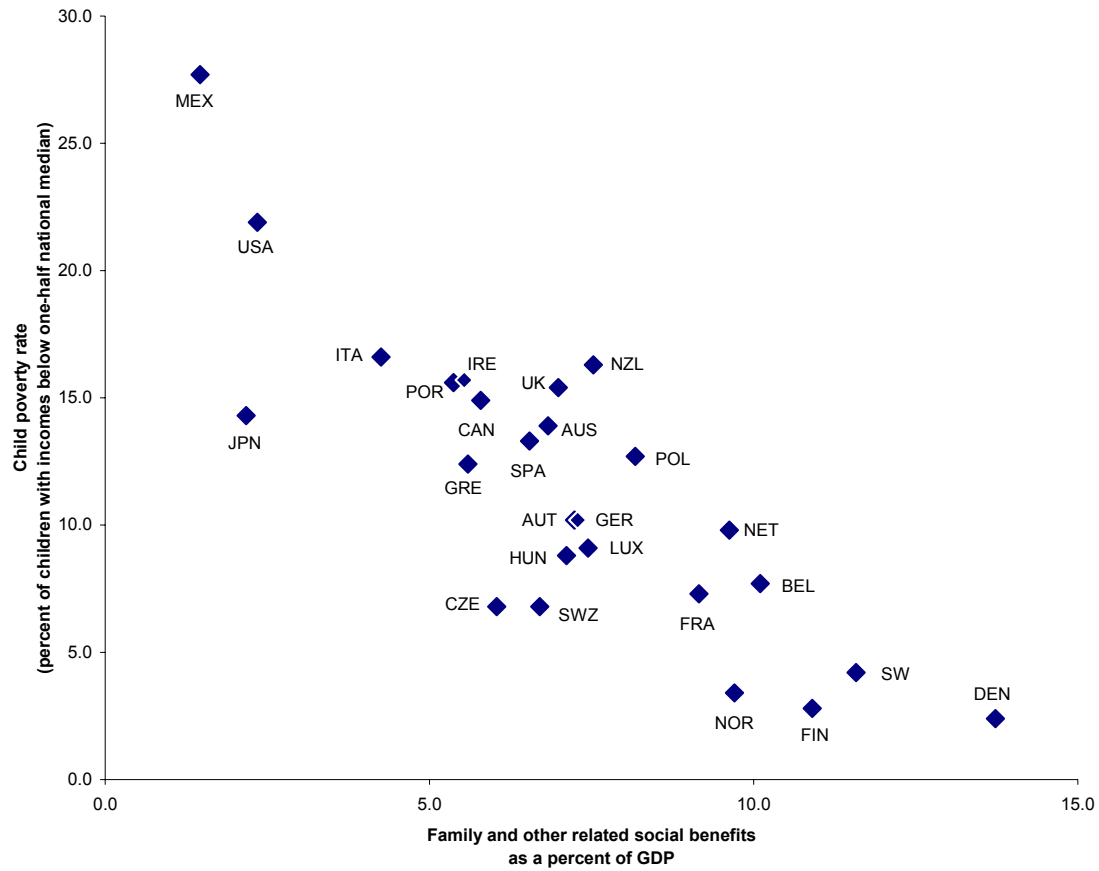

Source: See Table 4.

Figure 7
Child low income rates in the OECD based on market sources and disposable income:
late 1990s and early 2000s

Source: See Table 2.

Figure 8
Family related social expenditures and child poverty rates in the OECD

Source: For child poverty rates see Table 2. For social expenditures the source is OECD (2004), Social Expenditure Database, provisional version.