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## A basic income for Europe's children?

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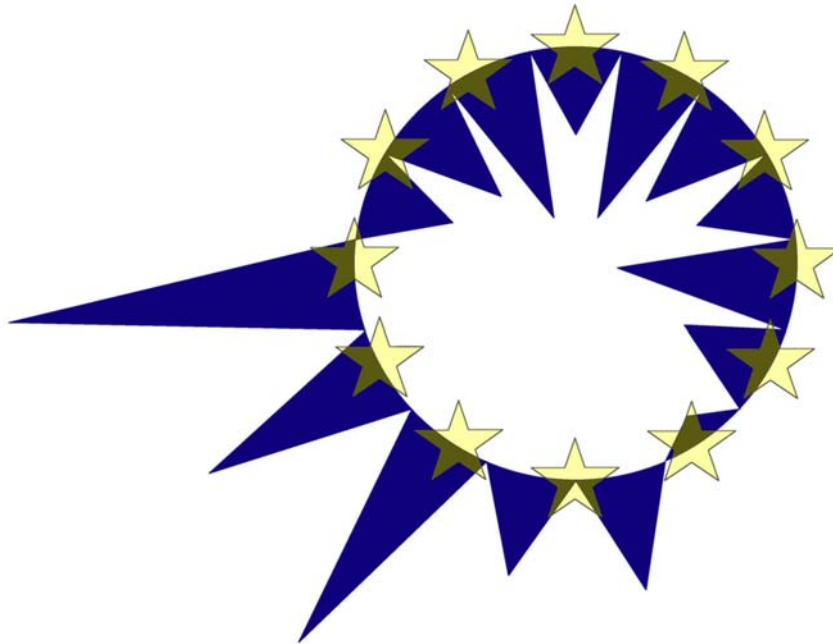
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# EUROMOD

## WORKING PAPER SERIES



EUROMOD Working Paper No. EM4/06

A BASIC INCOME FOR EUROPE'S  
CHILDREN?

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## **A BASIC INCOME FOR EUROPE'S CHILDREN? \***

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\* This paper uses EUROMOD version 31A. EUROMOD is continually being improved and updated and the results presented here represent the best available at the time of writing. Any remaining errors, results produced, interpretations or views presented are the authors' responsibility. EUROMOD relies on micro-data from twelve different sources for fifteen countries: the European Community Household Panel (ECHP) User Data Base made available by Eurostat; the Austrian version of the ECHP made available by the Interdisciplinary Centre for Comparative Research in the Social Sciences; the Panel Survey on Belgian Households (PSBH) made available by the University of Liège and the University of Antwerp; the Income Distribution Survey made available by Statistics Finland; the Enquête sur les Budgets Familiaux (EBF) made available by INSEE; the public use version of the German Socio Economic Panel Study (GSOEP) made available by the German Institute for Economic Research (DIW), Berlin; the Living in Ireland Survey made available by the Economic and Social Research Institute; the Survey of Household Income and Wealth (SHIW95) made available by the Bank of Italy; the Socio-Economic Panel for Luxembourg (PSELL-2) made available by CEPS/INSTEAD; the Socio-Economic Panel Survey (SEP) made available by Statistics Netherlands through the mediation of the Netherlands Organisation for Scientific Research - Scientific Statistical Agency; the Income Distribution Survey made available by Statistics Sweden; and the Family Expenditure Survey (FES), made available by the UK Office for National Statistics (ONS) through the Data Archive. Material from the FES is Crown Copyright and is used by permission. Neither the ONS nor the Data Archive bears any responsibility for the analysis or interpretation of the data reported here. An equivalent disclaimer applies for all other data sources and their respective providers.

# A BASIC INCOME FOR EUROPE'S CHILDREN?

Horacio Levy, Christine Lietz and Holly Sutherland <sup>1</sup>

## Abstract

This paper explores the prospects for a guaranteed income for every child in the European Union and its potential effects on child poverty, taking as one starting point the ideas set out in Atkinson (2005). It examines the extent to which existing levels of financial support for children through national taxes and benefits fall short of a series of illustrative minimum levels of income corresponding to proportions of median income. It estimates the cost of bringing the amount of support up to these levels for all children as well as the corresponding impacts on income poverty among EU children. From this the cost in each country of providing basic incomes for children is estimated such that potential EU child poverty reduction targets are met. This cost could be met at national level or, alternatively, at EU level and we investigate the effect of financing the guaranteed child income using a European flat tax (Atkinson, 1995). The analysis uses EUROMOD, the European tax-benefit microsimulation model and illustrates the implications of the choices that must be made when designing such a scheme for the extent of redistribution between countries and towards children.

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## Introduction

In the introduction to his “Public Economics in Action”, Atkinson expresses his conviction that “the proposal of a *basic income/flat tax*, or variations on its central elements ... should be on the agenda for any serious discussion of tax and social security reform for the twenty-first century” (Atkinson, 1995, page 1).

Some ten years after the publication of this work, the basic income/flat tax proposal (BI/FT), or variations of it, are gaining ground on the public debate on tax and social policy reform in some countries. A good example of that is the Green Paper on Basic Income published by the Irish Government in 2002 (Department of the Taoiseach, 2002).

Taking as one starting point the ideas set out in Atkinson (2005), this paper analyses a variation of the BI/FT which is considerably less ambitious than the original proposal but which has been suggested as an instrument to tackle child poverty in the European Union: a ‘Child Basic Income’ (CBI). This consists of an income that would be unconditionally guaranteed to every child by each Member State. Analysing the impact of such a proposal not only allows us to form judgements about the advantages and disadvantages of the approach, it also helps us to learn more about the existing social protection systems, as well as to consider some issues about the implementation of social policies at the European level. For example, we can assess the extent to which existing levels of financial support for children through national benefits and tax concessions fall short of illustrative minimum levels of income, and then calculate the cost of bringing the amount of support up to these levels for all children. Alternatively, measures of child poverty based on household income can be used to estimate the cost in each country of providing guaranteed incomes for children such that potential EU-wide child poverty reduction targets are met. The cost of implementing a CBI could be met at national or, instead, at EU level. Here, once more, we approximate to the original BI/FT idea by investigating the effect of financing the child basic income with the implementation of a new ‘European flat tax’.

Atkinson (1995) mentions the use of tax-benefit microsimulation models as one of the research fields in public economics that is relevant to the examination of the BI/FT proposal. Tax-benefit models have evolved in the last decade and here we employ one example of these recent developments: the European tax-benefit model EUROMOD. We investigate

the impact of different CBI levels in all 15 countries that constituted the European Union prior to the enlargement of May 2004 (EU15).<sup>2</sup>

The paper is organized as follows. Section 1 discusses why child basic income is a relevant policy option to tackle child poverty in the EU. Section 2 addresses the issues involved in putting a CBI into practice and assessing its impact. Section 3 presents some methodological issues related to the use of the microsimulation model EUROMOD; it explains how simulations are used to assess the current level of spending on children and determine the CBI levels, as well as some of the key definitions and assumptions that are used in the analysis. Section 4 measures the impact of different levels of CBI on aggregate spending on children and on child poverty rates. Section 5 explores the impact of financing a CBI through a flat tax. Section 6 considers the implications for transfers firstly across the EU-15 Member States and secondly between generation groups. Finally, section 7 concludes, focussing particularly on what microsimulation analysis can tell us about designing policy to achieve common objectives in the European Union, and suggesting an agenda for further work.

## **1 Child Basic Income as a policy to tackle child poverty in the EU**

Child poverty has recently emerged as one of the key issues in EU social policy. As pointed out by Atkinson et al. (2005), whereas just a few countries expressed concern about child poverty in their first National Action Plans on Social Inclusion (NAPs/inclusion) in 2001, this problem has been recognised by more countries in later years. Recently the European Commission acknowledged that “Material deprivation among children must be a matter of serious concern, as it is generally recognised to affect their development and future opportunities” and urged Member States towards “developing a focus on eliminating poverty and social exclusion among children” as one of the six key priorities “over the course of the next 2 years” (European Commission, 2004a, pages 2 and 7).

Economic indicators of living standards, in particular household income, reveal just one of the dimensions that affect the well-being of children. Therefore, combating child poverty requires a combination of different types of policies that in conjunction are able to protect children from all dimensions of poverty. Of course the child’s family income is a key dimension and is widely known to be correlated to other aspects of well-being (Gregg and Machin, 2001).

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<sup>2</sup> See Immervoll et al. (1999) and Sutherland (2000) for general descriptions. Sutherland (2001) provides a discussion of technical issues.

Hence, cash transfers to families with children are policies that are highly relevant to the development of a system that provides effective protection for children. It is income adequacy that the BI naturally addresses and on which this paper focuses.

Different types of policies or policy packages can be used to transfer income to families with children. Financial support to families with children may be provided through means-tested benefits targeted on lower income families. Tax concessions can be used to increase the disposable income of families that are subject to income tax. Transfers may also be targeted on special groups using non pecuniary restrictions such as benefits that depend on the labour market status of parents (or other characteristics), or by introducing child complements to benefits not strictly related to children such as housing benefit. Finally, cash support can be guaranteed to all children by un-conditional refundable tax credits and (universal) child benefits.

A “basic income guarantee for families with children” has been advocated by Esping-Anderson as part of “combined strategies” for “promoting a broad European goal of – simply – abolishing child poverty altogether” (Esping-Andersen, 2003, page 66). This view is also shared by the High-Level Group on the future of social policy in an enlarged European Union which includes among its policy recommendations “To reduce child poverty, including through a basic income for children delivered by Member States” (European Commission, 2004b, page 56).

In its original and purest form a *basic income* is an unconditional income transfer granted to every individual, irrespective of any personal circumstances such as employment or marital status. It guarantees an adequate level of income for each person, replacing all tax concessions and social benefits and, therefore, becoming the sole cash transfer.<sup>3</sup> Accordingly, a *pure* child basic income would consist of a generous unconditional child payment that would replace all existing child contingent tax concessions and cash transfers. A variation of this form of CBI could involve the setting of a universal level of child minimum income that would be unconditionally guaranteed to every child. Under the principle of subsidiarity, each Member State could choose its own preferred method to deliver this basic income. This seems to be the interpretation of the High-Level Group on the future of social policy in an enlarged European Union when it proposes a “basic income for children, under which all Member States

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<sup>3</sup> For more on the Basic Income proposal see, among others, Parker (1989), Van Parijs (1992), Atkinson (1995), Callan and Sutherland (1997) and Callan et al. (2000).

guarantee that the child benefit and other payments for children will reach a specified percentage of the median household income in that country” (European Commission, 2004b, page 44). Atkinson (2005) suggests setting the level of the CBI as that necessary to reach a specific child poverty target (for example, to halve the child poverty rate or reduce it to a certain level).

This *mixed* form of child basic income is explored in the following sections of this paper. Different levels of CBI are analysed by adding an amount to the existing level of child-contingent support such that the total matches the specified CBI level of income for each child in each country.<sup>4</sup> Thus we make no judgement about how these CBIs should be delivered in practice. The aim is simply that the same level of guarantee should apply to each child.

These CBI schemes have budgetary costs. In order to maintain budget neutrality with respect to the current system governments would have a number of options: reduce expenditure on other areas of the budget, raise any or some of the current revenues, or create new taxes. The pure Basic Income is usually twinned with a Flat Tax (FT). The pure FT would tax all income sources from the first euro with the same tax rate (without allowances or deductions) and would replace the existing income tax and social security contributions. The key feature of the Flat Tax proposal is its simplicity. By using a single rate some of the most complex aspects of taxation such as the definition of a tax unit, the period of assessment and the aggregation and definition of different types of income become irrelevant. This would significantly reduce administration costs for government, employers and taxpayers, as well as reduce evasion.

Here, we retain the existing tax and social insurance contribution systems and meet the additional cost of the CBI with an additional flat tax levied on all non-benefit income including pensions (before deducting existing taxes and contributions). In the next section we explain in further detail the steps, options and assumptions taken to implement the child basic income/flat tax package in EUROMOD.

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<sup>4</sup> Support is not reduced for those who receive more than the level of the CBI under the existing system.



## 2 Implementing a Child Basic Income

We are interested in exploring how a level of guaranteed income for each European child can contribute to the goal of reducing child poverty. In order to do so, we take the following steps.

### (a) Setting the CBI

The level of the CBI is set as a proportion of median household income. One option is to set the level in relation to the *national* median. This means that the cash value varies according to the level of national income and a CBI of 20% of income ranges from €107 per child per month in Portugal to €394 in Luxembourg (Table 1 shows the levels of median income). Alternatively, we may wish to use the CBI to redistribute to children in the lower-income countries of EU15, and may set the CBI in relation to the EU15 median income. In this case the level for the 20% CBI is €242 per month for each child. This will have less effect on children in the richer countries that also have generous child support systems, and very dramatic effects on lower income countries with little in the way of existing support. In each case we experiment with CBIs set according to several proportions of median income in order to establish the trade-offs between the size of the guarantee, its net cost and the reduction in child poverty.

### (b) Paying for the CBI

We have chosen to finance the CBI with a flat tax (FT). This makes it relatively straightforward to introduce in a uniform way in all countries.. Raising existing national taxes would introduce variation in effects depending on the structure of existing tax systems. Since the focus of this study is on support for children rather than financing mechanisms, the FT is a useful device. On the other hand, a flat tax levied at the national level, sufficient to pay for the national cost of the CBI, would be very expensive for countries with low existing levels of child-contingent support, which also tend to be those with lower incomes. Conversely, a flat tax set as a EU15 tax with a common rate applied everywhere, would have the effect of redistributing from higher to lower income countries and from countries with smaller shares of children in the population to those with relatively many. It is this second option which we explore. Table 1 shows, for example, that a flat tax of 2.3% would finance a CBI set at 20% of median income (in either national or EU15 terms).

### (c) Assessing the impact on child poverty

We can assess the effect on the child poverty rate using a poverty line set at the national or at the EU15 level. The latter results in a high proportion of children being classified as poor in relatively low-income countries and relatively few being so classified in higher income countries. For example 61% of children in Greece and 8% in the UK are classified as poor using a poverty line set as 60% of the EU15 median compared with 18% and 21%, respectively, using the national median. For simplicity we confine our analysis to using national poverty lines, although we return to this issue in the concluding section.

There is again a choice between defining targets for poverty reduction at the national level or at the EU15 level. For example, halving the child poverty rate might be achieved at the EU15 level without it being achieved in each individual country. In this paper we consider two illustrative nationally-determined targets: halving the rate of child poverty and reducing the rate to 5%. EUROMOD estimates of the 2001 child poverty rate range from 6.1% in Denmark to 28.3% in Portugal. Halving the rate is a more demanding target in Denmark than reducing to 5%. The reverse is the case in Portugal.

### (d) Comparing income levels across countries

Throughout we use the euro as the unit with which to measure income.<sup>5</sup> One of the attributes of a CBI with a common monetary value across countries is transparency. All euro-zone citizens would be aware of the minimum level of cash support that their children, and other EU children, should be receiving.

## 3 Data and methods

Our analysis makes use of EUROMOD to identify the net public spending on cash benefits (including tax concessions) that households receive by virtue of the presence of each child. It is this concept that we consider as the foundation of the CBI. If this “child contingent” income is less than the specified CBI level for any particular child, then the amount is topped

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<sup>5</sup> For the three countries not in the euro-zone, conversion from national currencies to euro uses market exchange rates as at 30 June 2001: 7.4488 for Denmark, 9.2942 for Sweden and 0.61405 for the United Kingdom. No adjustment is made for differences in purchasing power.

up to that level.<sup>6</sup> Child contingent income is obtained by using EUROMOD to re-calculate household incomes while disregarding children in the calculation of benefits and taxes received by the household. This calculation is not generally the same as simply counting up the value of “child” and “family” benefits. In many systems alternative benefits would to some extent substitute for these income sources if they did not exist, or if the children were not present. For example, alternative housing benefit schemes may exist for parents and non-parents; social assistance benefits may ‘fill the gap’ left by family benefits. Indeed some child-related components may be taxable and in this case their absence would result in a reduction in tax liability. Generally, the removal of tax concessions for children will result in taxes rising. EUROMOD re-calculates liabilities and entitlements and thus measures the net effect of child-contingent tax-benefit components.<sup>7</sup>

The datasets that are used in the current version of EUROMOD are shown in Appendix 1. The choice of dataset is based on the judgement of national experts about the most suitable dataset available for scientific research. Throughout we consider policies as they existed on 30 June 2001.<sup>8</sup> In most cases the input datasets refer to a period a few years prior to this and the original incomes derived from them are updated to this point in time. This process relies on indexing each income component that is not simulated by appropriate growth factors, based on actual changes over the relevant period.<sup>9</sup> In general no adjustment is made for changes in population composition.

Our analysis is based upon the following definitions and assumptions:

- Children are defined as individuals younger than 18 years.
- We assume that income is shared within the household such that household disposable income can be used to indicate the economic well-being of each individual within the household. When comparing across households, incomes are equalised using the modified OECD scale, as has become standard for EU comparisons since the recommendation by Eurostat. Generally, the individual is taken as the unit of analysis. So our focus is on each child, rather than on parents or on families containing children.

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<sup>6</sup> Strictly speaking, the calculation applies to all children in each household, rather than each child individually. Thus in systems where existing payments depend on age or parity (or some other child-level characteristic) there is some averaging in our calculations that would not take place in a truly individual child-based system.

<sup>7</sup> For more information about these calculations see Corak et al. (2005)

<sup>8</sup> A precise date is specified because the timing within the year of regular updating and other adjustments to tax-transfer systems varies across countries.

<sup>9</sup> This process is documented in EUROMOD Country Reports. See <http://www.iser.essex.ac.uk/msu/emod/countries/>

- Household disposable income is defined as original income added up over each household member plus between-household receipts (maintenance and alimony), minus taxes (income tax, social contributions and other direct personal taxes) plus cash benefits. Non-cash benefits are not included.
- Poverty is defined as living in a household with equivalised household disposable income below 60 per cent of the median (where the median is calculated across individuals). The child poverty rate is defined as the proportion of all children living in poor households. Implementing the CBI and the FT will affect median incomes. However, we make use of a poverty threshold that is fixed according to the baseline (2001, actual) median. In practice we would expect median income, and hence the relative poverty threshold to be influenced not only by the direct effects of the CBI and FT, but also by behavioural adjustments to the new policy regime. These are not considered in this analysis.
- We do not model non-take up of benefits or tax avoidance or evasion. Thus it is assumed that the legal rules apply and that the costs of compliance are zero. This can result in the over-estimation of taxes and benefits so in this case might under-estimate the cost and impact of the CBI.<sup>10</sup> Although the method of delivering the CBI is not determined and is assumed to be the choice of national administrations, it is likely that take-up rates would be high simply because the common level of total payment for all children is likely to minimise any stigma or information problems that underlie non take-up behaviour.

The level of the CBI is calculated in relation to common proportions of equivalised household disposable income, both within each country and across the EU15. The proportions used are 10, 20, 30 and 40 percent. Average spending per child for each of these eight levels of CBI is shown in Table 1, along with the actual average child contingent payment under the 2001 tax-benefit systems. It should be noted that the average payment when a CBI is implemented is typically larger than the CBI level itself (which can be calculated from median income, also shown in Table 1). This is because, especially at lower levels of CBI, some children receive a greater level of support under the existing system than provided by the CBI. Nevertheless, for all levels of CBI considered, the average payment under the CBI is larger than the average under the existing system: some children always benefit even at low levels of the guarantee.

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<sup>10</sup> It can also result in the under-estimation of poverty rates although this depends on the relationship between the level of income offered by the benefits and the poverty line (potential claimants may be poor whether or not they receive the benefits to which they are entitled).

For the 20% CBI the average payment for children in the whole EU15 is €250 per month, in contrast to €126 without the CBI. At this CBI level, the average payment is highest in Luxembourg (€420) and Denmark (€331) and lowest in Portugal (€107) and Greece (€121). The average payment depends not only on the median income level in the country concerned, but also on the distribution of payments under the actual system. The more existing payments are targeted on particular groups of children (leaving others with low or no payments) the higher the increase in average payment (and the aggregate cost) once the CBI is introduced.

The EU-set CBI naturally results in less variation in average payment across countries than does the CBI set in relation to national income levels. At the 20% level the range is from €349 in Luxembourg (only a little higher than €342, the average before any CBI) to €241 in Italy and Greece.

At higher levels of EU-CBI the average payment in each country starts to converge to the EU15 average (€484) although some variation remains as in a few countries under the actual 2001 system a few children receive child contingent payments in excess of the value of 40% of median income.

#### **4 The effect of the level of per-child spending on child poverty rates**

Aside from questions about the design and effects of the CBI, the relationship between child poverty rates and the level of per-child payments is of interest. As might be expected, the higher the average payment, the lower the child poverty rate. For the EU15 as a whole an increase of €100 per month per child results in a reduction in child poverty of about 5 percentage points. However, as shown by Figure 1 which plots the relationship for each country in comparison with the EU15 average, there is considerable cross-country variation in this relationship.

The existing position - actual 2001 child poverty rates and average child contingent spending under 2001 tax-benefit systems – is also plotted as a single point (an open square for the individual countries and a diamond for the EU15). This is identifiable separately from the line in the case of the EU15 and some individual countries (e.g. Greece and Spain). In countries where a 10% CBI makes little difference to the incomes of the poor this point showing the actual situation is shown close to or on the line. (e.g. Austria and Belgium). In interpreting this figure it is important to remember that, apart from the points showing the “actuals”

the structure of the spending takes on a more and more “universal” character as the amount of spending rises and a greater proportion of children are covered by the CBI. The relationships between child poverty rates and spending would be different if the extra spending were targeted on particular groups of children. In particular if it were targeted on children in low income households the slope of the curves would be steeper; if it were targeted on higher income households with children (perhaps through tax allowances) the curves would be flatter.

The steepness of the curves depends on several factors. One influence is the distribution of household incomes below the poverty line. A high concentration just below the line will result in a relatively large reduction in child poverty for a relatively small additional payment. On the other hand, if poor children are very poor, large payments are needed to reduce the child poverty rate. Secondly, the gradient depends on the composition of the households in which poor children live. If one child shares its household with many adults it will take a large child payment to lift the whole household out of poverty. Conversely, if it is lone parents with several children who are poor, a relatively small increase in per-child payment is sufficient to lift the household above the poverty line.<sup>11</sup> Thirdly, the shape depends on the nature of the existing system, to which the CBI provides a top-up. If support levels of current policies are low for poor children, then relatively modest levels of CBI will involve some increase in poor children’s incomes and a reduction in the child poverty rate. On the other hand, if support is already targeted on the poor, modest levels of CBI may result in income increases only for households with middle and high incomes. Poverty reduction would then require CBI levels above the current level of support for low income households, which may be substantially above the average level of support.

Figure 1 shows that several countries have curves that are relatively flat at lower levels of spending. This is particularly the case in the UK where, under the existing system, the largest payments are made to children in households with the lowest incomes.

The gradient is particularly steep in Portugal and also in Ireland, showing the potential for relatively modest increases in child payments to reduce child poverty in these countries. At

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<sup>11</sup> This depends on our use of the conventional assumption that income is equally shared across household members. The shape of these curves would change significantly if this assumption was modified. Orsini and Spadaro (2005) discuss and assess an alternative approach to the equal intra-household sharing hypothesis.

the other extreme, in Denmark and Belgium, where poverty rates are already low, large increases in payments are needed for modest reductions in child poverty.

These curves can be used as the basis for establishing the level of CBI that would be required to meet particular targets for child poverty reduction. Table 2 shows more precisely the level of CBI necessary to achieve the two illustrative targets discussed above. The level of guaranteed income per child that achieves a halving of the national child poverty rate ranges from €13 in Portugal and €136 in Spain to €403 in the UK and €443 in Luxembourg. Expressed as a percentage of national equivalised household disposable income the cost varies from 17% in Spain to 27% in Italy and the UK.

Reducing child poverty to a common low rate in all countries requires a different pattern of extra resources. In the three Nordic countries and Belgium, where the child poverty rate is already lower than 10%, less is required. In the Southern countries, Ireland and the UK achieving 5% is much more demanding than halving the high existing rate. The necessary level of child guaranteed payment corresponds to between 10% of national equivalised household disposable income in Denmark and 47% in Italy. When considered in relation to EU median, rather than the national median, the range in this case becomes narrower and varies from 13% in Denmark to 42% in the UK.

However, when considering the size of the CBI needed for the targets to be reached, it is also necessary to take account of the need to pay for the cost of the CBI. Some of the burden will fall on households near the poverty line if budget neutrality is to be achieved through a flat tax. This is considered in the next section.

## **5 Paying for the CBI with a flat tax**

The flat tax is implemented as a fixed percentage on all gross income including pensions but excluding other benefits.<sup>12</sup> This departs from the definitions of the national income tax bases to varying extents, and is distinct from all national income tax structures because it does not involve a tax-free allowance. The rates of flat tax, common to all countries, necessary to finance each of the levels of CBI range from 0.52% for the nationally-set 10% CBI to 6.92%

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<sup>12</sup> Public pensions are distinguished from benefits as follows: pensions are defined as incomes received by people aged 65+ that are pensions or paid instead of pensions (e.g. invalidity benefits, survivors' benefits) but not social assistance top-ups. This excludes early retirement pensions on the grounds that these are substitutes for unemployment benefits in some countries. A similar definition was used in EUROMOD for the year 1998 in Immervoll et al. (2006).

for the nationally-set 40% CBI (see Table 1). The combined impact of the eight variants of CBI and Flat Tax on child poverty is shown in Table 3.

As already shown in Figure 1, CBIs at the level of 10% of national median disposable income have little effect on child poverty in most countries. The exceptions are the four Southern countries (Italy, Spain, Greece and Portugal), especially Spain and Greece, and to some extent Denmark and the Netherlands. Child poverty rates in all countries are significantly reduced by CBIs of 20% of national income and are reduced below 4% by a 40% CBI in all countries except the four Southern countries.

The common EU-set CBI implies lower levels of CBI for higher-income countries and higher levels for low income countries. In this case even a 10% EU-CBI has a dramatic effect in Greece, Portugal and Spain (reducing child poverty rates by 7, 15 and 11 percentage points respectively) and at 40% it all but eradicates child poverty in these countries. On the other hand, as might be expected, the effect is smaller in higher income countries. Those still facing child poverty rates of more than 4% under a 40% EU-CBI include Luxembourg, UK, Italy and Germany.

A 20% EU-CBI actually results in an *increase* in child poverty in Luxembourg and the UK, as does a 10% EU-CBI in Austria. The explanation for this is that the EU flat tax, which is applied at the same rate in each country, pushes some households with children below the poverty line and this is not entirely offset by the numbers pushed above the line by the modest level of CBI. In Luxembourg and Austria, as shown in Table 1, the average payment is not much higher under the CBI set at 20% of the median than under the actual system. Households in these countries are paying the flat tax but not receiving much CBI in return. In the UK the current system is income-targeted to the extent that low income households do not benefit greatly (see Figure 1). The national versions of the CBI have a bigger effect in these three relatively high-income countries because the national CBIs, set relative to national median incomes are larger than the EU CBI, set relative to the EU median (see Table 1).

## **6 Transfers between countries and across generations**

The Flat Tax and CBI combination involves re-distribution between countries. Thus there are gainers and losers: countries that are net recipients or contributors. We identify them in terms of the proportional change in national household disposable income that occurs as a



result of the CBI/FT. The net national effect of each CBI/FT combination is shown in Figure 2, first for the national CBIs and then for the EU-set versions. Countries are ranked by the budgetary effect under the 40% version, shown by the darkest bars. A positive value indicates that the country is a net recipient; a negative value shows that the country is a net contributor. By design, the effect at the EU15 level is budget neutral, and is not shown.<sup>13</sup>

The rankings are not identical in the two versions of the Figure. Lower-income countries are more likely to be at the higher-gaining end under the EU-set scheme than under the national schemes. It should also be noted that the figures are not drawn to the same scale. The net gain in Ireland is of the same magnitude under both schemes (around 5% of household income) but other countries gain much more under the EU-set scheme. Generally the EU scheme involves more redistribution across countries, as would be expected.

Some countries are net contributors under both versions of the scheme and at all levels of CBI that have been investigated. These tend to be countries with a lower share of children in their populations, with higher income (receiving less CBI under the EU-CBI scheme) and with already-generous and/or comprehensive child contingent cash support systems (benefiting less from the CBI but paying their share of the FT). Such countries include Austria, Belgium, Germany and Luxembourg. A second set of countries are always net gainers. These are countries that have lower incomes or a higher share of children or less-developed child cash support systems. They include Greece, Italy, Portugal, Spain and also the Netherlands. The inclusion of the Netherlands in this group may be surprising but, while it does not have low income relative to the rest of the EU, it does have a high share of children (the fourth highest, according to the information in Appendix 1). It also has the fifth lowest level of existing spending on children through the cash benefit and tax systems, higher than the four Southern countries only (see Table 1), a finding confirmed using stylised family analysis by Bradshaw and Finch (2002, Table 11.3).

The remaining countries gain in some circumstances and lose in others. Interestingly it is not always the case that the net gain or loss increases monotonically with the CBI level. For example, in the UK moving from the national CBI of 10% to that of 20% increases the net cost. However, the net cost falls as the CBI level increases to 30% and vanishes as it reaches 40%. This is because the UK gains little from small amounts of CBI as it already has a

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<sup>13</sup> The net effect is made up of the additional spending on the CBI less the revenue from the Flat Tax. These are shown separately, as proportions of household disposable income, in Appendix 2.

relatively generous cash support system for children. But, because of its relatively high share of children in the population – the UK has the 6<sup>th</sup> highest in the EU15 (see Appendix 1) - as the level of CBI rises beyond a certain level the CBI spending as a percentage of overall disposable income in the UK catches up with the EU15 average. Italy provides a contrasting example. Given its less-developed child support system, it benefits substantially more than the EU15 average at low CBI levels. However, as the level increases the relatively low proportion of children in Italy results in a lower rate of increase in spending on the CBI than for the EU15 as a whole.

Within each country, whether or not the country as a whole is a net loser or gainer, we can anticipate that there will be significant shifts in resources towards children and away from households without children. Indeed for all levels of CBI, changes in income for households with children are more positive than for households as a whole.<sup>14</sup> But there are losers as well as gainers among households with children and the group as a whole is not always better off. With the 10% EU-CBI children are on average net losers in Austria, Belgium, Denmark, Germany, Luxembourg and the UK. In Luxembourg even the 40% EU-CBI results in children as a group being worse off, and the national 10% CBI also results in children being losers in Austria, Belgium and Luxembourg.

For the EU15 as a whole 40% CBIs financed by the FT result in a shift of resources to children equivalent to 14% of disposable income for households containing children. The corresponding increases for the 10% and 20% CBI are 1% and just under 5% of disposable income respectively. This applies whether the CBI is set nationally or at the EU15 level. The choice between national or EU-level CBI does affect the extent of re-distribution toward children within countries. It is greater under the EU-CBI in the Southern countries and greater under the nationally-set CBIs in Denmark, Germany, Luxembourg and the UK.

Our calculations demonstrate rather starkly that, in improving the level of guaranteed cash support for children, there is a choice over the nature of the re-distribution that takes place to free up the necessary resources. One option is to rely on re-distribution within a country, from the older and the child-less (which has not been considered directly here). Another is redistribution across countries from those with small population shares of children to those with large shares. A third is re-distribution from relatively rich to relatively poor countries. A fourth – which is closely related to the third – is re-distribution from countries with well-

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<sup>14</sup> The results for households with children are provided in Appendix 3.

developed child support systems, to those without. Depending on the balance between these options, different countries are net gainers and children – within countries and across the EU15 – benefit to varying extents.

## **7 Concluding points and a further agenda**

This is a first attempt to quantify the scale of guaranteed child payments needed to meet specific child poverty targets in the countries of EU15. We have considered child basic incomes which are made up of existing child payments, including tax concessions, topped up to meet a series of common standardised levels of per-child income. Our main focus has concerned the implications of the way these common income levels are specified, on the redistribution between countries and from the childless to households with children, and how differences between countries have an impact on the effects of the schemes. Apart from the impact on child poverty rates we have not explored the distributional effects of these universal schemes within countries. This is for reasons of brevity and is clearly an interesting subject for further work.

Halving child poverty rates in all Member States could be achieved with CBIs set at between 18% and 27% of national median income. A CBI corresponding to a common proportion of 25% of national median income would at least halve child poverty in all countries except Italy and the UK. Reducing the child poverty rate to 5% is a less demanding task in a few countries and a much more demanding task in others. Using an EU-CBI of 40% of EU15 median income would meet this target in all cases except Luxembourg and the UK. These proportions correspond to average levels of payment that are much higher than under any existing system. At the same time, rather lower levels of CBI are quite effective at reducing child poverty in countries with less well-developed child-contingent systems, particularly in Greece, Spain, and Portugal and also to some extent in Italy. This indicates that a rather different form of child BI might be an effective policy choice in these countries. A guaranteed universal child payment at a low level relative to the CBIs considered here has been examined for the Southern European countries by Matsaganis et al. (2006).

A variant that has not been considered in this paper is the effect of the EU-set CBI on child poverty measured against a line set in relation to the EU-15 median income. This would highlight attention on the Southern European countries where high proportions of households

with low income relative to the EU median are located. The CBI, and particularly the EU-set CBI, has a strong impact in these countries because of the low level of existing child-contingent payments. The effect on child poverty rates, when using the higher poverty line is a matter for empirical investigation. But the main focus would then be on the equalising of the average level of incomes across countries, rather than the distribution within countries and across generations.

We have chosen to meet the cost of the CBIs with a flat tax, using a common EU15-wide tax rate on all non-benefit gross income. The combined schemes are budget-neutral across EU15 but involve substantial cross-country subsidisation. While clearly not on any current policy agenda in the form presented here, we consider the implications for between-country transfers to be informative, both in illuminating existing inequalities and in highlighting some of the issues to be addressed in setting targets and standards within the European Union. The CBI/FT schemes also involve a shift in resources from the (currently) childless to children, since the flat tax is levied on all incomes. As implemented here childless households with any non-benefit income, including some on very low pension incomes, contribute to the cost of the CBIs. They are not protected by adult BIs as in the classical version of the BI/FT scheme. This indicates that financing a child BI with a general flat tax is not a practical proposition on its own. Other financing mechanisms, perhaps using existing tax bases and schedules, would be more appropriate.

One of the factors that determine whether a country is a net contributor or beneficiary is the nature and level of the existing system of child contingent support. Countries with relatively high standards of child support tend to be net contributors. One reaction to this would be to ask why countries that already prioritise their own children should also be required to support children in other countries. In a dynamic perspective this could be expected to lead to a “race to the bottom” in terms of non-CBI spending on children, as countries try to maximise transfers from other Member States. On the other hand, the extent of within country redistribution has its limits, particularly in the lower-income countries, and if child poverty reduction targets are to be both ambitious and achievable across the whole EU, some cross-country transfer might be needed to meet them.

However, if the CBI takes the form of a top up to existing measures, the “race to the bottom” effect is accentuated: the less adequate the nationally-financed system, the larger the burden

on the EU-financed top-up. This suggests that either the top-up CBI should be nationally financed, with any cross-country subsidisation using an independent mechanism, or that the CBI should not depend (inversely) on the generosity of the existing system.

A second factor that affects the relative size of the national financing burden is the share of children in the population. Countries with low fertility tend to be those that contribute. Given the importance of children as the labour force and taxpayers of the future (among other things), it can be argued that it is reasonable that there should be some community-level support for this resource. Member States with difficulties in increasing fertility might contribute to, or “invest in”, the support of children of other Member States, who will be part of the European labour force of the future. However, this is only sustainable if there is also some sharing of responsibility for the support of incomes in old age. A companion to the CBI might be the common provision of an adequate retirement income, guaranteed at the EU level (Atkinson et al., 2002).

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Table 1: Average payments per child by levels of child basic income (CBI) and rates of flat tax

	AT	BE	DK	FI	FR	GE	GR	IR	IT	LU	NL	PT	SP	SW	UK	EU15	Flat tax rate
Median income	1327	1287	1581	1304	1339	1371	603	1209	987	1969	1375	534	809	1289	1480	1210	
Without CBI	184	176	163	140	159	158	22	151	54	342	87	35	26	117	185	126	0.00%
CBI 10	186	179	201	161	178	170	62	162	102	343	143	57	81	142	207	153	0.52%
CBI 20	268	258	331	266	273	277	121	253	197	420	276	107	162	258	308	250	2.35%
CBI 30	399	384	478	393	402	412	180	368	295	596	412	160	243	386	446	369	4.61%
CBI 40	531	513	633	522	536	548	240	486	394	789	550	214	324	514	592	492	6.92%
EU-CBI 10	185	178	176	155	173	164	121	162	121	342	128	121	121	136	194	157	0.60%
EU-CBI 20	245	244	268	248	250	247	241	253	241	349	244	242	242	243	265	249	2.33%
EU-CBI 30	364	361	373	365	364	364	362	368	362	398	363	363	363	362	368	364	4.51%
EU-CBI 40	484	481	487	484	484	484	483	486	483	496	484	484	484	483	485	484	6.77%

Source: EUROMOD

Notes: All monetary amounts are €per month. Median income is household equivalised disposable income. CBI payments are themselves independent of household size and are the same for all children.

CBI xx: child basic income set at xx% of the national median income.

EU-CBI xx: child basic income set at xx% of the EU15 median income.



Table 2: Meeting targets for child poverty: levels of CBI necessary to achieve (a) halving the child poverty rate and (b) a child poverty rate of 5%

	AT	BE	DK	FI	FR	GE	GR	IR	IT	LU	NL	PT	SP	SW	UK
2001 actual child poverty rate	10.5	8.8	6.1	10.1	19.1	15.0	17.7	26.8	26.0	15.5	13.8	28.3	25.3	8.2	21.4
<i>(a) halving the child poverty rate</i>															
CBI in monthly €	301	319	347	268	315	340	149	302	263	443	242	113	136	229	403
% of national equivalised median	23%	25%	22%	21%	23%	25%	25%	25%	27%	23%	18%	21%	17%	18%	27%
% of EU15 equivalised median	25%	26%	29%	22%	26%	28%	12%	25%	22%	37%	20%	9%	11%	19%	33%
<i>(b) a child poverty rate of 5%</i>															
CBI in monthly €	309	274	156	268	397	421	231	410	463	501	283	198	329	215	513
% of national equivalised median	23%	21%	10%	21%	30%	31%	38%	34%	47%	25%	21%	37%	41%	17%	35%
% of EU15 equivalised median	26%	23%	13%	22%	33%	35%	19%	34%	38%	41%	23%	16%	27%	18%	42%

Source: EUROMOD

Notes: The child poverty rate is the proportion of all children living in households below 60% of the national median equivalised household disposable income. The same poverty line is used for measuring child poverty after the introduction of the CBI, even though median income is likely to change.

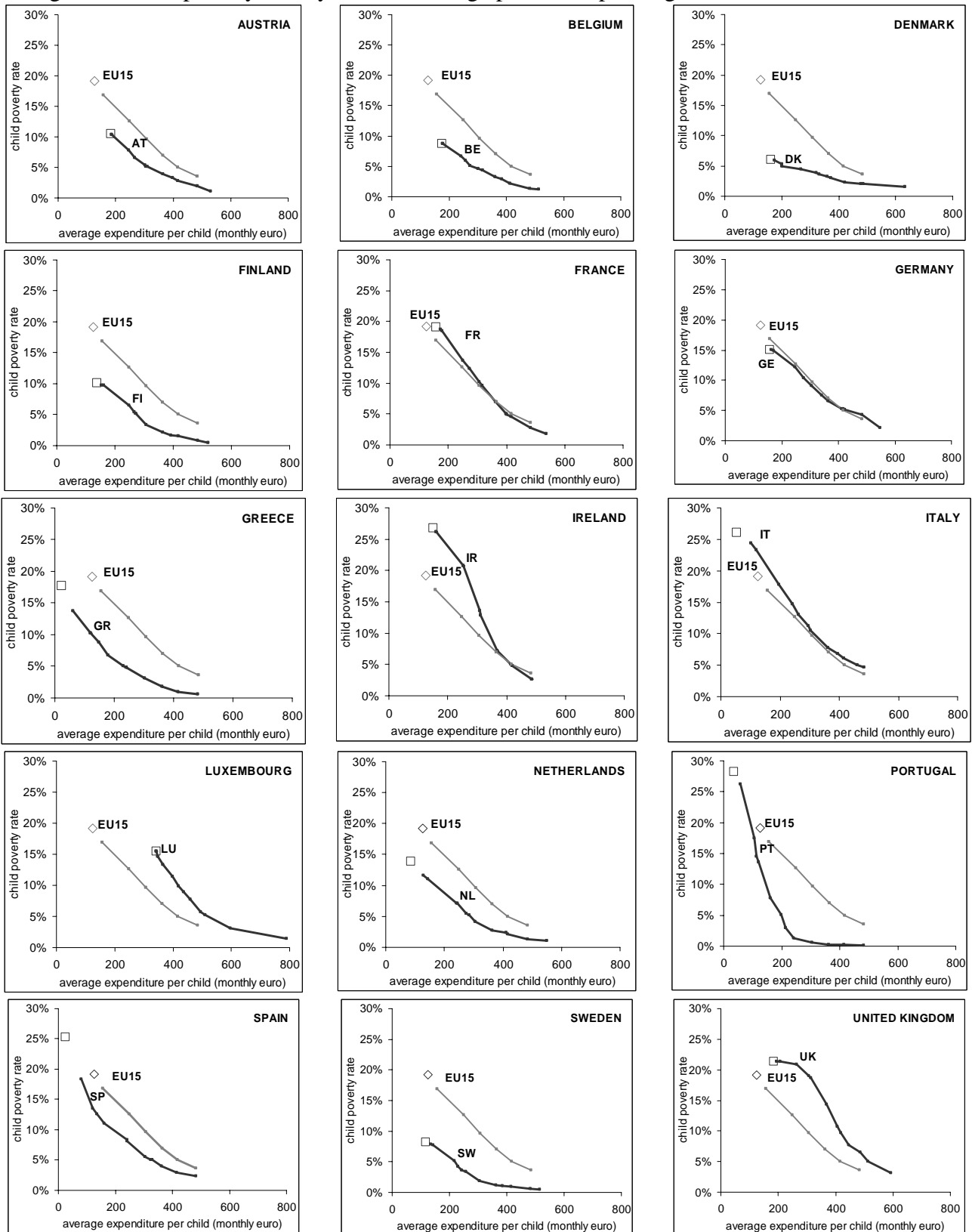
Table 3: Child poverty rates (%) under the 2001 tax-benefit system and with CBI, financed by a EU15 flat tax.

	<b>AT</b>	<b>BE</b>	<b>DK</b>	<b>FI</b>	<b>FR</b>	<b>GE</b>	<b>GR</b>	<b>IR</b>	<b>IT</b>	<b>LU</b>	<b>NL</b>	<b>PT</b>	<b>SP</b>	<b>SW</b>	<b>UK</b>	<b>EU15</b>
2001 actual child poverty rate	10.5	8.8	6.1	10.1	19.1	15.0	17.7	26.8	26.0	15.5	13.8	28.3	25.3	8.2	21.4	19.2
CBI 10	10.3	8.7	5.0	9.7	18.5	15.0	13.8	26.2	24.4	15.5	11.1	26.2	18.3	7.7	21.4	17.8
CBI 20	7.1	6.2	3.7	6.1	13.4	11.1	10.5	20.8	18.8	11.0	5.7	18.2	11.6	3.6	19.7	13.5
CBI 30	3.6	3.0	2.2	2.0	5.5	5.5	7.4	7.3	12.4	3.9	2.4	9.1	8.9	1.2	8.2	6.9
CBI 40	1.3	1.2	1.6	0.6	2.5	2.5	5.4	3.0	7.8	1.8	1.2	4.6	5.9	0.6	3.6	3.7
EU-CBI 10	10.7	8.8	6.1	10.0	18.9	15.0	10.3	26.4	23.5	15.5	11.9	13.7	13.9	7.9	21.7	17.1
EU-CBI 20	8.8	6.9	4.4	7.2	14.9	13.0	4.9	20.8	15.4	15.6	7.6	1.5	8.7	3.9	21.6	13.3
EU-CBI 30	4.4	3.4	3.8	2.3	8.4	7.1	2.0	7.3	8.4	13.4	3.0	0.3	4.5	1.4	14.8	7.6
EU-CBI 40	2.3	1.7	2.2	1.1	3.4	4.5	0.7	3.0	5.3	7.8	1.7	0.1	2.8	0.6	7.0	4.0

Source: EUROMOD

Notes: The child poverty rate is the proportion of all children living in households below 60% of the national median equivalised household disposable income. The same poverty line is used for measuring child poverty after the introduction of the CBI-FT system (even though median income is likely to change.)

Figure 1: Child poverty rate by level of average per-child spending under a CBI

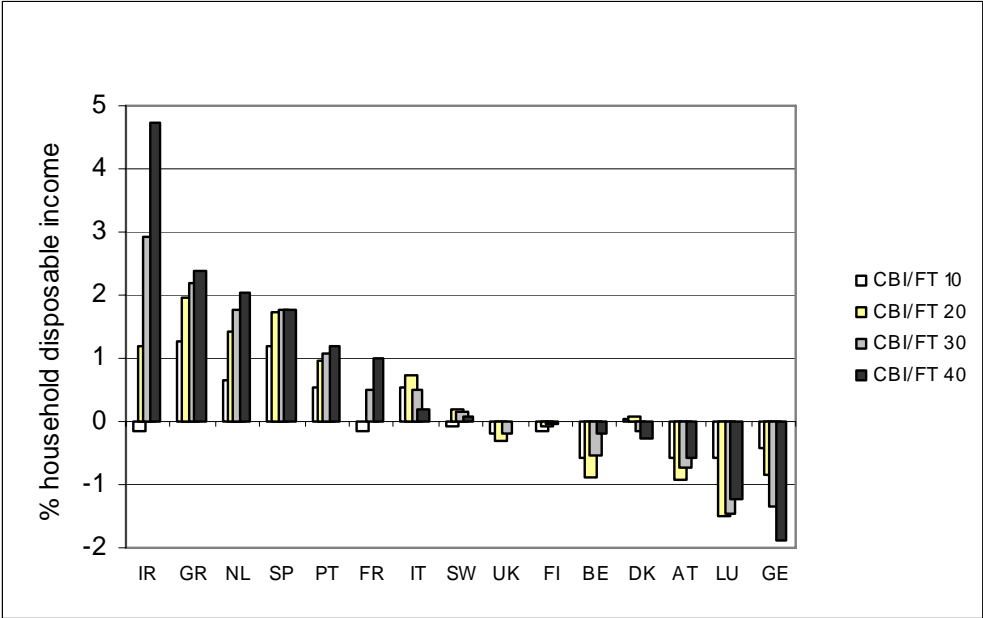


Source: EUROMOD.

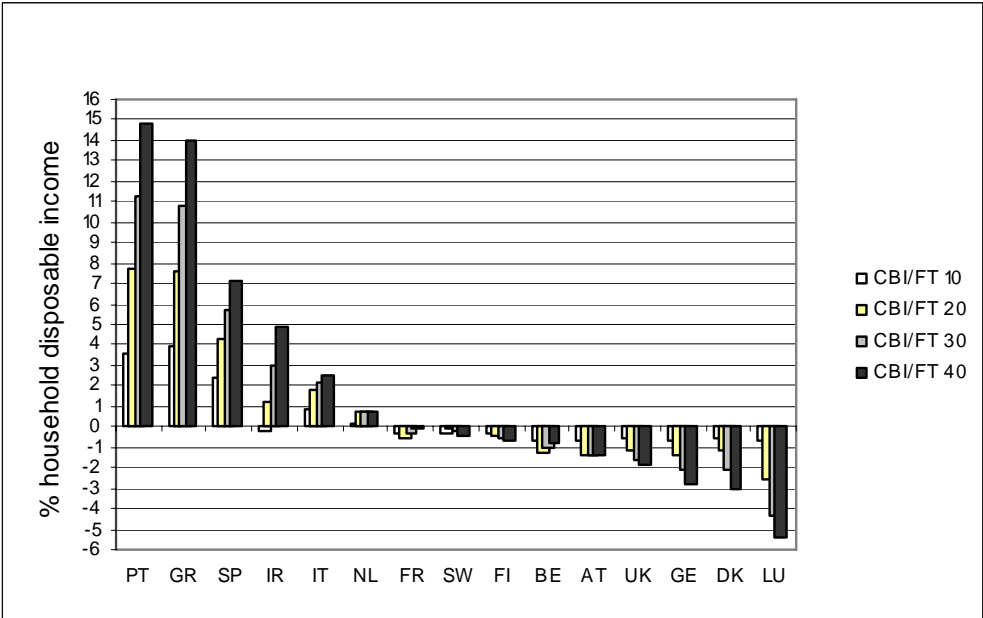
Notes: The single point shown by an open square (diamond) shape indicates the actual 2001 position for each country (EU15). The other points shown on the continuous lines plot the relationship between per child spending and child poverty at each level of the CBI and EU-CBI (EU-CBI) calculated in this paper: 10, 20, 30 and 40 percent, and the levels required to halve child poverty and reduce it to 5%

Figure 2: Gainers and losers: the net budgetary effect of the CBI/FT as a proportion of national household disposable income

(a) National CBI/FT



(b) EU-set CBI/FT



Source : EUROMOD.

Notes: Countries are ranked by the amount they gain from the CBI/FT 40 scheme (shown by the black bars), as a proportion of national household disposable income. A downward pointing bar indicates a loss. The paler bars indicate the gain/loss at lower levels of CBI. The two charts are not drawn to the same scale: the Irish gain is about the same size under both the national and EU-set CBI.

## Appendix 1 EUROMOD Datasets

Country	Base Dataset for EUROMOD	Date of collection	Reference time period for incomes	Sample size		Children as share of population % <sup>1</sup>
				households	children	
Austria	Austrian version of European Community Household Panel	1999	annual 1998	2,672	1,687	21.3
Belgium	Panel Survey on Belgian Households	1999	annual 1998	3,653	2,245	24.0
Denmark	European Community Household Panel	1995	annual 1994	3,215	1,666	23.3
Finland	Income distribution survey	2001	annual 2001	10,736	7,493	22.0
France	Budget de Famille (HBS)	1994/5	annual 1993/4	11,291	7,448	24.0
Germany	German Socio-Economic Panel	2001	annual 2000	7,020	3,743	18.7
Greece	European Community Household Panel	1995	annual 1994	5,168	3,089	21.3
Ireland	Living in Ireland Survey	1994	month in 1994	4,048	4,534	30.8
Italy	Survey of Households Income and Wealth	1996	annual 1995	8,135	4,353	18.6
Luxembourg	PSELL-2	2001	annual 2000	2,431	1,426	22.2
Netherlands	Sociaal-economisch panelonderzoek	2000	annual 1999	4,329	2,694	23.9
Portugal	European Community Household Panel	2001	annual 2000	4,588	2,392	21.2
Spain	European Community Household Panel	2000	annual 1999	5,048	2,642	18.9
Sweden	Income distribution survey	2001	annual 2001	14,610	7,182	22.0
UK	Family Expenditure Survey (HBS)	2000/1	month in 2000/1	6,634	4,071	22.9

<sup>1</sup> Calculated using weights.

Appendix 2: Gains and losses: the cost of CBIs, FT revenue and the net effect at the national level, as percentages of disposable income

%	AT	BE	DK	FI	FR	GE	GR	IR	IT	LU	NL	PT	SP	SW	UK	EU15
CBI 10	0.0	0.1	0.8	0.5	0.4	0.2	1.9	0.4	1.1	0.0	1.3	1.1	1.8	0.6	0.4	0.6
CBI 20	1.8	2.1	3.4	2.7	2.6	2.1	4.6	3.6	3.4	1.2	4.3	3.6	4.4	3.1	2.3	2.8
CBI 30	4.7	5.3	6.3	5.5	5.6	4.4	7.4	7.6	5.8	3.8	7.5	6.2	7.0	5.9	5.0	5.4
CBI 40	7.5	8.6	9.5	8.2	8.7	6.7	10.2	11.8	8.2	6.6	10.6	8.9	9.6	8.7	7.8	8.1
EU-CBI 10	0.0	0.1	0.3	0.3	0.3	0.1	4.6	0.4	1.6	0.0	0.9	4.3	3.1	0.4	0.2	0.7
EU-CBI 20	1.3	1.7	2.1	2.3	2.1	1.5	10.3	3.6	4.5	0.1	3.6	10.3	7.0	2.8	1.5	2.7
EU-CBI 30	3.9	4.7	4.2	4.8	4.7	3.5	15.9	7.6	7.4	0.8	6.3	16.3	10.9	5.4	3.5	5.3
EU-CBI 40	6.5	7.8	6.5	7.4	7.5	5.6	21.6	11.8	10.3	2.3	9.1	22.3	14.8	8.0	5.7	8.0
FT for CBI 10	0.6	0.7	0.7	0.6	0.6	0.6	0.6	0.5	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
FT for CBI 20	2.7	3.0	3.3	2.8	2.6	2.9	2.7	2.4	2.7	2.7	2.9	2.6	2.7	2.9	2.6	2.8
FT for CBI 30	5.4	5.9	6.5	5.5	5.1	5.7	5.2	4.7	5.3	5.2	5.7	5.1	5.2	5.7	5.2	5.4
FT for CBI 40	8.1	8.8	9.8	8.2	7.7	8.6	7.9	7.0	8.0	7.9	8.6	7.7	7.9	8.6	7.8	8.1
FT for EU-CBI 10	0.7	0.8	0.8	0.7	0.7	0.7	0.7	0.6	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
FT for EU-CBI 20	2.7	3.0	3.3	2.8	2.6	2.9	2.7	2.4	2.7	2.6	2.9	2.6	2.6	2.9	2.6	2.7
FT for EU-CBI 30	5.3	5.7	6.4	5.4	5.0	5.6	5.1	4.6	5.2	5.1	5.6	5.0	5.1	5.6	5.1	5.3
FT for EU-CBI 40	7.9	8.6	9.6	8.1	7.5	8.4	7.7	6.9	7.8	7.7	8.4	7.6	7.7	8.5	7.6	8.0
CBI/FT 10	-0.6	-0.6	0.0	-0.2	-0.1	-0.4	1.3	-0.1	0.5	-0.6	0.7	0.5	1.2	-0.1	-0.2	0.0
CBI/FT 20	-0.9	-0.9	0.1	-0.1	0.0	-0.9	1.9	1.2	0.7	-1.5	1.4	1.0	1.7	0.2	-0.3	0.0
CBI/FT 30	-0.7	-0.5	-0.1	0.0	0.5	-1.4	2.2	2.9	0.5	-1.5	1.8	1.1	1.8	0.2	-0.2	0.0
CBI/FT 40	-0.6	-0.2	-0.3	0.0	1.0	-1.9	2.4	4.7	0.2	-1.2	2.0	1.2	1.8	0.1	0.0	0.0
EU-CBI/FT 10	-0.7	-0.7	-0.6	-0.4	-0.3	-0.6	3.9	-0.2	0.9	-0.7	0.2	3.6	2.4	-0.3	-0.5	0.0
EU-CBI/FT 20	-1.4	-1.2	-1.2	-0.4	-0.5	-1.4	7.6	1.2	1.8	-2.6	0.7	7.7	4.3	-0.1	-1.1	0.0
EU-CBI/FT 30	-1.4	-1.0	-2.1	-0.5	-0.3	-2.1	10.8	3.0	2.2	-4.3	0.7	11.3	5.7	-0.2	-1.6	0.0
EU-CBI/FT 40	-1.4	-0.8	-3.0	-0.7	0.0	-2.8	13.9	4.9	2.5	-5.4	0.7	14.8	7.1	-0.4	-1.9	0.0

Source: EUROMOD

Notes: CBI/FT xx: child basic income set to xx% of country's median household equivalised disposable income, financed by EU-wide FT

EU-CBI/FT xx: child basic income set to xx% of EU15's median household equivalised disposable income (no PPP adjustment), financed by EU-wide FT

Appendix 3: Targeting children: proportional changes in disposable income for households with children

%	AT	BE	DK	FI	FR	GE	GR	IR	IT	LU	NL	PT	SP	SW	UK	EU15
CBI/FT 10	-0.5	-0.5	1.1	0.6	0.4	0.1	3.4	0.2	2.6	-0.5	3.0	1.9	3.6	1.0	0.6	1.0
CBI/FT 20	2.0	1.8	4.6	4.7	3.7	3.8	7.2	4.3	6.9	0.6	9.2	5.4	7.7	6.1	3.9	4.8
CBI/FT 30	6.8	6.4	8.3	9.6	8.4	8.6	10.5	9.6	10.8	5.1	15.2	8.9	11.3	11.4	8.8	9.4
CBI/FT 40	11.7	11.1	12.3	14.6	13.3	13.4	13.8	15.0	14.7	10.2	21.1	12.2	14.8	16.7	14.0	14.1
EU-CBI/FT 10	-0.7	-0.6	-0.2	0.2	0.1	-0.4	9.3	0.1	3.8	-0.6	1.9	9.1	6.6	0.5	-0.2	1.2
EU-CBI/FT 20	0.7	1.0	1.6	3.7	2.4	2.1	19.5	4.3	9.9	-2.3	7.2	20.8	13.9	5.1	1.6	4.7
EU-CBI/FT 30	4.9	5.2	3.5	8.0	6.4	6.0	29.2	9.7	15.5	-2.6	12.1	32.0	20.7	10.0	4.7	9.2
EU-CBI/FT 40	9.2	9.4	5.6	12.5	10.5	9.9	38.8	15.2	21.0	-1.2	17.0	43.1	27.3	14.9	8.5	13.8

Source: EUROMOD

Notes: CBI/FT xx: child basic income set to xx% of country's median household equivalised disposable income, financed by EU-wide FT

EU-CBI/FT xx: child basic income set to xx% of EU15's median household equivalised disposable income (no PPP adjustment), financed by EU-wide FT