

The distributive and cross country effects of a Child Basic Income for the European Union

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The distributive and cross country effects of a Child Basic Income for the European Union

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Abstract

This paper explores the within and between country distributional implications of an illustrative Child Basic Income (CBI) operated and funded at EU level. Using EUROMOD, we establish that a universal payment of \notin 50 per month per child aged under 6 could take 800,000 children in this age group (and their families) out of poverty and would close the poverty gap of those remaining below the threshold by 6%. It could be financed by an EU flat tax of 0.2% on all household income, assuming that it would also be taxed nationally (as the mother's earned income).

Between countries, the scheme would redistribute income away from richer member states and those with fewer children towards poorer ones and those with more children. Most member states and virtually all families with children aged under 6 would be net gainers. In general, fiscal flows between member states, and also poverty reduction, would be smaller under an EU CBI that was adjusted for purchasing power differences across countries.



Introduction

This research note discusses the budgetary and poverty implications of a Child Basic Income (CBI) operated and funded at EU level.

A CBI is a universal, unconditional, regular, per-child cash payment that does not depend on parental circumstance, but only on the definition of who counts as a child. Unlike child tax allowances, it is not restricted to families paying income tax. Unlike means-tested benefits or tax credits, children from higher income families are not excluded. Unlike some family benefits, it is paid per child rather than per family, so larger families receive more. Unlike some other family benefits that target larger families, small families also benefit.¹

Because it is paid regardless of parental income and work status, it does not have the negative effects on work incentives of means-tested benefits. Because it is independent of the parental composition of the family (one- or two-parents), there can be no argument that a CBI itself discriminates in favour or against particular parental arrangements. Because it is paid unconditionally, administrative and compliance costs would be very low, take-up would be very high, and indeed payment could potentially be made automatic. A CBI offers a reliable channel for income support targeted on children, and hence a simple mechanism for reducing poverty among children.

In general, the costs and benefits of a new benefit depend very much on the level at which it is set, and how it is integrated with existing provision. The EU Child Basic Income simulated here is additional to existing provision for children in each member state. The scheme's key characteristics are as follows: it is targeted to all children aged under 6; it is universal (i.e. irrespective of parents' income); it is taxable (i.e. included in mothers' taxable income); it is funded out of a flat tax on all incomes, at a common rate set exactly to offset its cost at EU level.

More specifically, four CBI versions are simulated here: the benefit rate is set at $\in 20$ and $\in 50$ per month per child, both in absolute terms (i.e. at the same benefit rate in all member states) and in purchasing power parity terms (i.e. adjusting the benefit rate so as to reflect price differences between member states) respectively.

This research note estimates the cost of each version (in each member state and in the EU as a whole), its impact on child poverty (also in each member state and in the EU as a whole), and fiscal flows between member states (resulting from the fact that the flat tax is set at a common rate, which is set to offset the cost of CBI at EU - not national – level).

Methodology

EUROMOD

We make use of EUROMOD, the tax-benefit microsimulation model for the European Union.² Using household micro-data representative of the population of each EU member state, EUROMOD computes tax liabilities and benefit entitlements for all observations in the database. Based on a common framework – which applies the same methods and approaches both in the construction of the databases and in the calculation of taxes and benefits of each country – EUROMOD is a unique tool for international comparative research on the effects of taxes and benefits, and their reforms, on the distribution and redistribution of income.

¹ For a rather different approach to a CBI than that taken in this paper see Levy at al. (2007).

² See Sutherland (2007) and https://www.iser.essex.ac.uk/euromod/.



Because of its common framework, and databases that are representative of populations of each member state, EUROMOD is not only able to carry out cross-country comparisons but also to perform EU-wide analysis – taking the population of the whole of the European Union as a single group.

EUROMOD has been built and is maintained by a team of researchers at the University of Essex in collaboration with a group of national experts.³ The model's databases and policy rules are periodically updated and its results validated and documented in country reports.⁴

Data

In most cases the national databases used in EUROMOD are drawn from the European Union Survey on Statistics on Income and Living Conditions (EU-SILC), provided by Eurostat. However, due to difficulties reconciling the variable design of the EU-SILC and the requirements of EUROMOD, in a number of countries national versions of the EU-SILC - provided by national statistics institutes – complement or substitute the Eurostat data (see 0). In the case of the United Kingdom, the Family Resources Survey is used instead.

Data used here was collected in the year 2008 with income information referring to the previous year - the only exceptions are France (data collected in 2007) and the UK (data collected in 2008/2009 and income refers to the previous month). In order to make the information consistent and suitable for tax-benefit simulation, different reference periods have been reconciled by adapting demographic and labour characteristics to the income information. Such adaptations have involved changes and imputations in a number of variables. Also, the sample has been adapted by excluding individuals born after the income reference.⁵

Finally, in order to use the data to analyse subsequent years, monetary variables are brought to price levels of the year in question by applying uprating indices that reflect the average evolution of these variables between the income reference period and the year of simulation (in our case from 2007 to 2010).

Simulation

Using as baseline the 2010 tax-benefit systems modelled in EUROMOD, four different policy reform scenarios were simulated. Each of these reforms consisted of Child Basic Incomes paid per child under 6 years of age. The amounts of benefit were the same for all children, independently of family circumstances or the receipt of any other benefit. In all countries and independently of the approach to similar benefits, the CBI was made subject to income tax by including it to the same tax base as employment income.⁶ Finally, the reform was made budget neutral by fully financing it via an EU flat tax rate. This tax was calculated as the aggregate 'net cost' of the benefit (i.e. after taxed at national level) divided by the aggregate gross income at EU level. The rate was then applied to the gross income of all individuals. The result was deducted from disposable income.

All four simulated reform scenarios follow the same structure, and only differ with respect to the amount of the benefit. Four different types of benefit amounts were simulated: ≤ 20 and ≤ 50 per month per child, and ≤ 20 and ≤ 50 per month per child adjusted for differences in purchasing power. As shown in Table 1, the CBI rate per

³ See https://www.iser.essex.ac.uk/euromod/developing-euromod/euromodupdate/euromodnational-teams.

⁴ See https://www.iser.essex.ac.uk/euromod/resources-for-euromod-users/country-reports.

⁵ For details see the EUROMOD country reports.

⁶ In the case of France, the benefit was also subject to Contribution Sociale Généralisée (CSG).



child would vary significantly once adjusted for purchasing power parity (PPP). For example, the amount of the PPP-adjusted benefit in Denmark would be almost 3 times as much as in Bulgaria (Table 1).

| | EU CBI benefit rate | | | EU tax rate | | | | |
|----------------|----------------------------|-------|-------|---------------------|-------|-------|-------|-------|
| | (euro per month per child) | | | (% of gross income) | | | | |
| | 20abs | 20ppp | 50abs | 50ppp | 20abs | 20ppp | 50abs | 50ppp |
| Belgium | 20.00 | 22.28 | 50.00 | 55.70 | 0.08% | 0.08% | 0.20% | 0.20% |
| Bulgaria | 20.00 | 10.16 | 50.00 | 25.40 | 0.08% | 0.08% | 0.20% | 0.20% |
| Czech Republic | 20.00 | 15.04 | 50.00 | 37.60 | 0.08% | 0.08% | 0.20% | 0.20% |
| Denmark | 20.00 | 28.46 | 50.00 | 71.15 | 0.08% | 0.08% | 0.20% | 0.20% |
| Germany | 20.00 | 20.86 | 50.00 | 52.15 | 0.08% | 0.08% | 0.20% | 0.20% |
| Estonia | 20.00 | 14.96 | 50.00 | 37.40 | 0.08% | 0.08% | 0.20% | 0.20% |
| Ireland | 20.00 | 23.82 | 50.00 | 59.55 | 0.08% | 0.08% | 0.20% | 0.20% |
| Greece | 20.00 | 19.02 | 50.00 | 47.55 | 0.08% | 0.08% | 0.20% | 0.20% |
| Spain | 20.00 | 19.40 | 50.00 | 48.50 | 0.08% | 0.08% | 0.20% | 0.20% |
| France | 20.00 | 22.16 | 50.00 | 55.40 | 0.08% | 0.08% | 0.20% | 0.20% |
| Italy | 20.00 | 20.70 | 50.00 | 51.75 | 0.08% | 0.08% | 0.20% | 0.20% |
| Cyprus | 20.00 | 17.82 | 50.00 | 44.55 | 0.08% | 0.08% | 0.20% | 0.20% |
| Latvia | 20.00 | 14.44 | 50.00 | 36.10 | 0.08% | 0.08% | 0.20% | 0.20% |
| Lithuania | 20.00 | 13.02 | 50.00 | 32.55 | 0.08% | 0.08% | 0.20% | 0.20% |
| Luxembourg | 20.00 | 24.10 | 50.00 | 60.25 | 0.08% | 0.08% | 0.20% | 0.20% |
| Hungary | 20.00 | 12.98 | 50.00 | 32.45 | 0.08% | 0.08% | 0.20% | 0.20% |
| Malta | 20.00 | 15.58 | 50.00 | 38.95 | 0.08% | 0.08% | 0.20% | 0.20% |
| Netherlands | 20.00 | 21.52 | 50.00 | 53.80 | 0.08% | 0.08% | 0.20% | 0.20% |
| Austria | 20.00 | 21.24 | 50.00 | 53.10 | 0.08% | 0.08% | 0.20% | 0.20% |
| Poland | 20.00 | 12.38 | 50.00 | 30.95 | 0.08% | 0.08% | 0.20% | 0.20% |
| Portugal | 20.00 | 17.64 | 50.00 | 44.10 | 0.08% | 0.08% | 0.20% | 0.20% |
| Romania | 20.00 | 11.76 | 50.00 | 29.40 | 0.08% | 0.08% | 0.20% | 0.20% |
| Slovenia | 20.00 | 16.92 | 50.00 | 42.30 | 0.08% | 0.08% | 0.20% | 0.20% |
| Slovakia | 20.00 | 14.32 | 50.00 | 35.80 | 0.08% | 0.08% | 0.20% | 0.20% |
| Finland | 20.00 | 24.70 | 50.00 | 61.75 | 0.08% | 0.08% | 0.20% | 0.20% |
| Sweden | 20.00 | 24.32 | 50.00 | 60.80 | 0.08% | 0.08% | 0.20% | 0.20% |
| United Kingdom | 20.00 | 20.04 | 50.00 | 50.10 | 0.08% | 0.08% | 0.20% | 0.20% |

Table 1 – Simulated Child Basic Incomes: benefit amount and EU tax rate

Sources: Own calculations based on Eurostat (2012)

As shown below, the rate of the flat tax needed to finance the benefit at the EU level would be around 0.08% of gross income for a benefit of ≤ 20 per month and 0.20% for ≤ 50 , suggesting an additional tax rate of 0.004% for each additional euro of CBI per month.

Measurement

Following the fact that the policy analysed here is targeted at those under the age of 6, all indicators used are also based on the same definition of children (i.e. aged under 6). In this analysis we assumed that income is equally shared within the household, so



that household disposable income can be used as an indicator of the economic wellbeing of each individual within the household ('within household' incidence is not considered).

Household disposable income is defined as original income plus private transfers and social benefits minus taxes and social contributions, aggregated at the household level. Non-cash benefits are not included. Household disposable incomes are equivalised using the modified OECD equivalence scale.

Poverty is measured following the Laeken at-risk-of-poverty approach defined as those living in households with equivalised household disposable income below 60 per cent of the median.

Results

Cost of a EU CBI

The gross cost of a Child Basic Income for the European Union would obviously depend on the benefit rate. The CBI scheme paying €20 per month per child would cost over €7 billion EU-wide, i.e. slightly above 5% of the current EU budget, or 0.06% of the European Union's GDP. The €50 scheme would cost around €18 billion, i.e. almost 13% of the EU budget, or 0.15% of EU GDP.

Making the CBI taxable at national level would on average 'claw back' about 15% of its total gross cost. The rest would be funded by a flat tax on all incomes, set at a common rate across the EU. That rate would have to be 0.08% in the case of the ≤ 20 scheme, or 0.20% in the case of the ≤ 50 scheme. This is shown in Table 2.

| | EU CBI scheme | | | |
|---|---------------|--------|--------|--------|
| | 20abs | 20ppp | 50abs | 50ppp |
| gross cost (million euro per year) | 7 321 | 7 171 | 18 302 | 17 928 |
| as % of EU budget | 5.19% | 5.09% | 12.98% | 12.72% |
| as % of EU GDP | 0.06% | 0.06% | 0.15% | 0.15% |
| national tax levied (million euro per year) | 1 051 | 1 060 | 2 740 | 2 760 |
| as % of gross cost | 14.35% | 14.78% | 14.97% | 15.39% |
| EU tax required (million euro per year) | 6 203 | 6 036 | 15 393 | 14 976 |
| flat tax rate | 0.08% | 0.08% | 0.20% | 0.20% |
| as % of EU budget | 4.40% | 4.28% | 10.92% | 10.62% |
| as % of EU GDP | 0.05% | 0.05% | 0.13% | 0.12% |

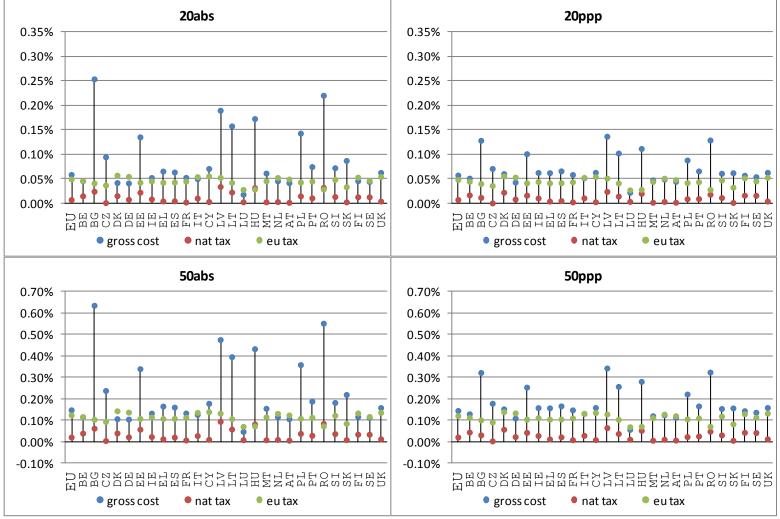
Table 2 – Funding implications at EU level

Sources: Own calculations based on Euromod F5.36

The interaction of gross cost, national tax and EU flat tax in each of the four CBI versions simulated by member state is shown in Graph 1.



Graph 1 – Funding implications per country



Note: As % of national GDP. Sources: Own calculations based on Euromod F5.36



Clearly, variation between member states is much greater in the versions where CBI is set in absolute terms ('20abs' and '50abs') than in those where CBI is adjusted for purchasing power parity ('20ppp' and '50ppp'). The relative weight of a European CBI as a proportion of national GDP would be greatest in Bulgaria and Romania, followed by Hungary, Poland and the Baltic states. However, it would remain limited, in no case exceeding 0.64% of GDP (Bulgaria, '50abs'). The proportion of total gross cost 'clawed back' through national taxation would vary widely across countries, from under 5% in the Czech Republic and Slovakia to over 30% in Belgium and the Nordic countries. Such differences reflect both differences in taxation and of labour market participation of mothers with young children (whenever possible the CBI is paid to the mother and therefore added to her taxable income).

Impact on child poverty

We estimate child poverty in the absence of a European Union Child Basic Income (i.e. in the baseline), relative to a poverty threshold at 60% of national equivalised median income, in the 0-5 age group, to be 17.0%. Compared to that baseline, and using a fixed poverty line, a EU CBI would cause a reduction in the headcount rate of between 0.9 and 2.4 percentage points. The EU CBI version paying to all families, wherever in the EU they reside, €50 per month for each child aged below 6 ('50abs') would perform best, reducing the number of children in poverty by 14.2%. This would represent bringing almost 800 thousand children aged under 6 out of poverty. The poverty gap reduction, relative to a baseline of 26.5% (i.e. in the absence of a European Child Basic Income), would range from 0.5 to 1.6 percentage points. According to Table 3, in its best-performing version ('50abs'), the EU CBI would reduce the average income shortfall of families relative to the poverty line by 6.2%.

The anti-poverty effect of a European CBI using a lower threshold, at 40% of median income, would be even stronger. In terms of headcount rates, from a baseline of 5.4%, poverty would fall by between 0.4 and 1.1 percentage points. In the case of '50abs', or the CBI version paying \in 50 for all children aged 0-5, the implicit reduction in the number of those below the threshold would be 20.8%. Moreover, the reduction in the average income shortfall of the relevant families, relative to the income corresponding to a poverty line at 40% of median, would range from 1.1 to 2.4 percentage points, the proportional reduction in the latter case being 7.7% (under '50abs').

Table 4 shows on a country-by-country basis the proportional reduction in the number of children aged 0-5 in poverty achieved by a Child Basic Income for the European Union. Focusing on the best-performing version (paying to all families, wherever in the EU they reside, \in 50 per month for each eligible child), the reduction would be greatest in Hungary (37%), and exceed 25% in Romania, Bulgaria, Slovakia, Estonia, Lithuania and the Czech Republic; in contrast, it would be negligible in Sweden and Denmark (1% or less).

On the other hand, if the level of payment were adjusted for purchasing power parity, the poverty reduction would also be significant in Western Europe, especially but not exclusively in countries like Finland, Austria and the Netherlands (a reduction of 18%, 20% and 22% respectively under `50ppp').

Table 5 shows the reduction in poverty rates due to a Child Basic Income for the European Union for the general population (again, on a country-by-country basis). Obviously the proportional reduction here is not as spectacular, even though under '50abs' it does reach 2% in the EU as a whole (1.5 million people), arriving at 8% in Hungary, and around 5% in Romania and Slovakia.



Table 3 – Impact on child poverty

| | EU CBI scheme | | | | | |
|--|---------------|-------|-------|-------|--|--|
| | 20abs | 20ppp | 50abs | 50ppp | | |
| A. poverty line fixed to the baseline at 60% of equivalised median disposable income | | | | | | |
| Неа | dcount rate | | | | | |
| Baseline (without EU CBI) | | 17. | 0% | | | |
| Reform (with EU CBI) | 16.1% | 16.1% | 14.6% | 14.9% | | |
| Difference in percentage points | -1.0 | -0.9 | -2.4 | -2.2 | | |
| Proportional reduction (%) | 5.6 | 5.1 | 14.2 | 12.7 | | |
| Po | overty gap | | | | | |
| Baseline (without EU CBI) | 26.5% | | | | | |
| Reform (with EU CBI) | 25.8% | 25.8% | 24.9% | 25.2% | | |
| Difference in percentage points | -0.8 | -0.5 | -1.6 | -1.1 | | |
| Proportional reduction (%) | 2.9 | 2.0 | 6.2 | 4.3 | | |
| B. poverty line fixed to the baseline at 40% of equivalised median disposable income | | | | | | |
| Headcount rate | | | | | | |
| Baseline (without EU CBI) | CBI) 5.4% | | | | | |
| Reform (with EU CBI) | 5.0% | 5.0% | 4.3% | 4.5% | | |
| Difference in percentage points | -0.4 | -0.4 | -1.1 | -0.9 | | |
| Proportional reduction (%) | 8.1 | 6.5 | 20.8 | 16.7 | | |
| Poverty gap | | | | | | |
| Baseline (without EU CBI) | 31.7% | | | | | |
| Reform (with EU CBI) | 30.3% | 30.8% | 29.3% | 29.8% | | |
| Difference in percentage points | -1.4 | -1.1 | -2.4 | -2.1 | | |
| Proportional reduction (%) | 4.3 | 3.6 | 7.7 | 6.6 | | |

Note: Poverty indices computed for the population of children under 6 years of age. Sources: Own calculations based on Euromod F5.36



| | Baseline Proportional reduction in child poverty (%) | | | | |
|----------------|--|-------|-------|-------|-------|
| | poverty rate | 20abs | 20pps | 50abs | 50pps |
| EU | 17.0% | -6 | -5 | -14 | -13 |
| Belgium | 12.2% | -4 | -4 | -18 | -20 |
| Bulgaria | 26.1% | -12 | -8 | -31 | -16 |
| Czech Republic | 9.6% | -10 | -6 | -25 | -21 |
| Denmark | 6.9% | 0 | 0 | 0 | -1 |
| Germany | 14.2% | -4 | -5 | -10 | -12 |
| Estonia | 13.7% | -13 | -9 | -27 | -20 |
| Ireland | 14.0% | -4 | -5 | -7 | -7 |
| Greece | 20.4% | -5 | -5 | -12 | -10 |
| Spain | 17.0% | -3 | -3 | -9 | -9 |
| France | 16.6% | -3 | -4 | -7 | -9 |
| Italy | 20.2% | -3 | -3 | -9 | -9 |
| Cyprus | 13.1% | -1 | -1 | -25 | -25 |
| Latvia | 21.4% | -6 | -2 | -20 | -13 |
| Lithuania | 15.8% | -12 | -4 | -27 | -15 |
| Luxembourg | 9.4% | -16 | -17 | -20 | -23 |
| Hungary | 18.0% | -13 | -7 | -37 | -28 |
| Malta | 18.3% | -7 | -7 | -19 | -13 |
| Netherlands | 11.7% | -6 | -9 | -14 | -22 |
| Austria | 13.7% | -10 | -10 | -20 | -20 |
| Poland | 18.5% | -10 | -4 | -23 | -16 |
| Portugal | 15.1% | -9 | -9 | -23 | -15 |
| Romania | 26.2% | -13 | -8 | -35 | -19 |
| Slovenia | 11.1% | -9 | -9 | -15 | -15 |
| Slovakia | 13.8% | -9 | -7 | -30 | -19 |
| Finland | 12.4% | -8 | -11 | -14 | -18 |
| Sweden | 12.1% | -1 | -1 | -1 | -2 |
| United Kingdom | 19.7% | -7 | -7 | -12 | -12 |

Table 4 – Impact on child poverty per country

Note: Poverty rate of children under 6 years of age. Poverty line defined as 60% of equivalised median disposable income.

Sources: Own calculations based on Euromod F5.36



| | Baseline | Proportional reduction in overall poverty (%) | | | | |
|----------------|-----------------|---|-------|-------|-------|--|
| | poverty rate | 20abs | 20pps | 50abs | 50pps | |
| EU | 15.9% | -1 | -1 | -2 | -2 | |
| Belgium | 11.6% | 0 | 0 | -2 | -2 | |
| Bulgaria | 20.0% | -2 | -1 | -4 | -2 | |
| Czech Republic | 7.9% | -1 | -1 | -2 | -1 | |
| Denmark | 10.4% | 0 | 1 | 2 | 3 | |
| Germany | 14.2% | 0 | -1 | -1 | -1 | |
| Estonia | 15.6% | -2 | -1 | -3 | -3 | |
| Ireland | 13.0% | -1 | -1 | 0 | 0 | |
| Greece | 20.8% | 0 | 0 | 0 | 0 | |
| Spain | 18.8% | 0 | 0 | -1 | -1 | |
| France | 13.3% | -1 | -1 | -1 | -2 | |
| Italy | 17.5% | 0 | 0 | -1 | -1 | |
| Cyprus | 14.6% | 0 | 0 | -3 | -3 | |
| Latvia | 20.1% | 0 | 0 | -1 | -1 | |
| Lithuania | 17.8% | 1 | 0 | -1 | 0 | |
| Luxembourg | 8.2% | -3 | -3 | -3 | -3 | |
| Hungary | 11.3% | -4 | -2 | -8 | -7 | |
| Malta | 16.1% | 0 | 0 | -2 | -1 | |
| Netherlands | 10.2% | 0 | -1 | -2 | -3 | |
| Austria | 11.8% | -1 | -1 | -3 | -2 | |
| Poland | 17.5% | -1 | -1 | -2 | -1 | |
| Portugal | 19.1% | -1 | -1 | -3 | -2 | |
| Romania | 23.1% | -2 | -1 | -5 | -3 | |
| Slovenia | 13.7% | -1 | -1 | -2 | -2 | |
| Slovakia | 9.4% | -2 | -1 | -5 | -4 | |
| Finland | 11.9% | -1 | -2 | -2 | -2 | |
| Sweden | 12.4% | 0 | 0 | 1 | 1 | |
| United Kingdom | 16.3% | -1 | -1 | -2 | -2 | |

Table 5 – Impact on overall poverty per country

Note: Poverty rate of total population. Poverty line defined as 60% of equivalised median disposable income.

Sources: Own calculations based on Euromod F5.36



Vertical and horizontal redistribution

At this point, an interesting question arises: how would the net monetary advantage of a European Union Child Basic Income be distributed vertically (i.e. between income groups) and horizontally (i.e. between household types) within the same country? The answer to that question is made complex by the fact that a EU CBI would be funded out of national (often progressive) and European (flat rate) taxation, and that, although not means-tested, would target families with children aged 0-5.

In terms of vertical redistribution, Graph 2 clearly shows that the EU CBI would be worth more to low-income families with eligible children (i.e., aged 0 to 5) than to high-income ones.

Among families with children aged 0 to5, the version of EU CBI at \in 50 per month, not adjusted for purchasing power ('50abs'), families in the bottom 25% of the income distribution would in most countries gain over €40 per month. Even in net contributor countries, as explained below, low-income families with eligible children would gain considerable amounts: €43 per month in Germany, €31 in the Netherlands, €23 in Denmark.

On the other hand, families in the top 25% would benefit less. Even so, their net gain from a EU CBI at €50 per month (`50abs'), would in many countries exceed €25 per month. The opposite is the case in countries where national taxes are high (so that a high share of benefit would be clawed back), and where disposable incomes are high (so that the EU flat tax would bite more): in Germany their net gain would be €20 per month, in the Netherlands $\in 16$, in Denmark and Luxembourg $\in 10$.

Further analysis confirms that the distributional impact of a EU CBI would also be progressive when the entire population is considered. For instance, looking at the EU population as a whole, a EU CBI of €50 per month not adjusted for differences in purchasing power ('50abs'), would, in average, increase the income of the bottom quarter by €1.95 per month and of the second quarter €1.52. In contrast, those in third quarter would lose €0.04 per month, while those in the top 25% would practically bear the full cost of the scheme, losing on average $\in 3.42$ per month.⁷

In terms of horizontal redistribution, the EU CBI would clearly redistribute from households without children to households with children aged under 6. For illustration, we take again the case of EU CBI at \in 50 per month, not adjusted for purchasing power ('50abs'). In the EU as a whole, the net average gain of couples with children (defined for this purpose as persons aged below 18 without partner) would be €19.14 per month, while couples without children would suffer a net average loss of €6.94 per month.⁸

⁷ While a EU CBI would be budget neutral in the EU as a whole, this would not be the case on a country-by-country basis. As a result, gains and losses are not evenly balanced within countries. For example, under `50abs', Romanian households in the top quartile would gain €1.89 per month, while Danish households in the bottom quartile would lose €1.42 per month. Detailed results are not shown here, but are available on request.

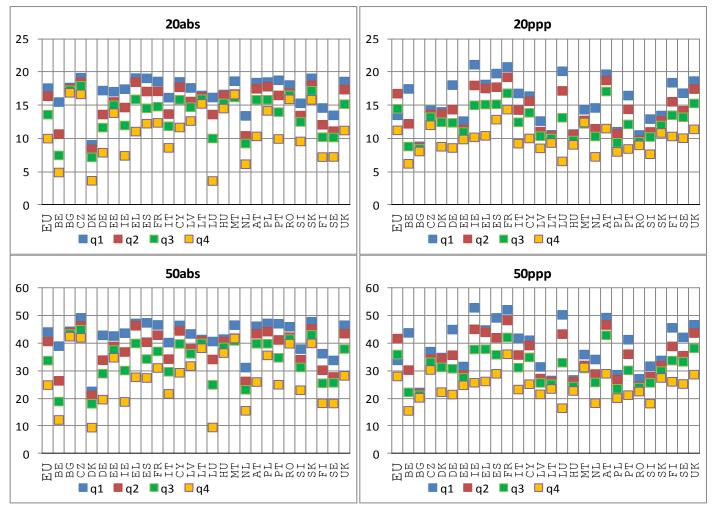
⁸ As above, within a given country gains would not exactly offset losses. Nevertheless, with one exception, in all countries households with children would be net gainers, while households with children would be net losers. The exception is households with children and three or more adults: in some countries they would be net gainers, but in others net losers. Detailed results, not shown here, are available on request.

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Graph 2 – Net average benefit per child by quartile



Note: Euro per child per month. Average benefit is net of national and EU taxes; q1 = poorest 25%; q4 = the richest 25% of the income distribution.

Sources: Own calculations based on Euromod F5.36



The same pattern emerges if we focus on the distribution of gains and losses by age. In the EU as a whole, children aged 0-14 would make an average net gain of \in 4.40 per month, while the elderly (aged 65+) would make an average net loss of \in 1.17 per month; working age individuals (aged 15-64), many of whom live in households with eligible children, would make a net loss of only \in 0.09 (under '50abs').⁹

Fiscal flows between member states

In the scenario we simulate, the net cost of a European Union CBI (once national taxation of the Child Basic Income is taken into account) would be funded out of a flat tax on all incomes, set at a common rate throughout the EU. Given that, richer countries and/or those with fewer children would be net contributors: in other words, they would pay in flat tax more than they would receive in CBI. Obviously, the opposite would be true in the case of poorer member states and/or those with more children.

Graph 3 shows that the main net recipients of CBI-related fiscal flows would be (in order of magnitude) Bulgaria, Romania, Hungary, Poland, the Baltic countries, the Czech Republic and Slovakia. South European countries (except Italy), France, Cyprus, Malta, Slovenia and the UK (the latter two marginally) would also benefit.

On the other hand, no member state would have to pay in flat tax more than 0.1% of its GDP in excess of what it would receive in CBI. The main net contributors would be Denmark, Germany, the Netherlands, Finland, Sweden and Belgium, followed by Austria, Italy and Luxembourg. The remaining country (Ireland) would be net contributor under one version of CBI ('50abs'), but net beneficiary under the other three.

As a rule, fiscal flows between member states would be larger under CBI versions set in absolute terms rather than PPP-adjusted, and under the \leq 50 rather than the \leq 20 versions.

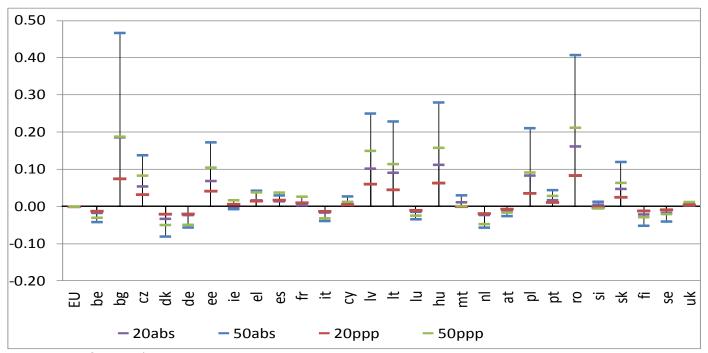
Focusing on the EU CBI version paying ≤ 50 per month for each child aged below 6 ('50abs'), Bulgaria and Romania would be net recipients of the equivalent of 0.47% and 0.41% of their GDP respectively, while Denmark and Germany would be net contributors (at 0.08% and 0.06% of GDP).

Graph 4 compares the net flows of the EU CBI to the expenditures and contributions of Member States to the 2011 EU budget. The indicator presented measures the amount of EU expenditures on each country as a proportion of the contributions paid by that country to the EU budget. In the case of the EU-CBI, the indicator measures the full cost of CBI as proportion of the national tax on CBI and EU flat tax collected in the country.

According to our results, the EU CBI net flows would have a much lower dispersion than the current net contributions to the EU budget. Whereas the Baltic republics and Luxembourg receive from the EU 5 times or more what they contribute, in the most extreme scenario, the main beneficiaries of the EU CBI (Romania and Bulgaria) would get slightly less than 4 times their contributions. In fact, among EU budget net recipients, only Romania and Bulgaria (although not in all scenarios) would get proportionally more with the EU CBI. Other significant net recipients such as the Baltic republics, Hungary, Greece and Portugal would get a considerably lower proportions than what they get from the EU budget. As for net contributors, except for Denmark and Finland (when benefits are not adjusted for purchasing power differences), the net contribution to the EU CBI is lower (i.e., higher proportion) than to the EU budget. In fact, in the case of France and the UK, they even become net beneficiaries.

⁹ Children (aged 0-14) would gain in all countries, while the elderly (aged 65+) would lose in all countries – except Bulgaria and Romania, where they would gain €0.07 and €0.16 respectively. Detailed results are not shown here, but are available on request.

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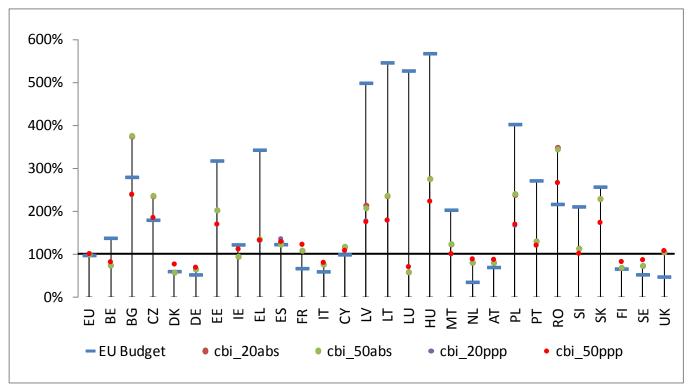
Graph 3 – Net flows per country

Note: As % of national GDP.

Sources: Own calculations based on Euromod F5.36

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Graph 4 – EU expenditure on country as proportion of national contribution to EU

Notes:

EU Budget: total expenditure as percentage of total national contributions. CBIs: total CBI cost as percentage of national tax on CBI plus EU flat tax. Sources: European Commission (2012) and Own calculations based on Euromod F5.36



Conclusions

This research note assesses the likely effects of a European Union Child Basic Income in terms of poverty indices and fiscal costs (including flows between member states).

According to our simulations, the gross cost of such a scheme would be modest, ranging from 0.06% to around 0.15% of EU GDP (in the versions paying \leq 20 and \leq 50 per child per month respectively). National taxation would claw back one-seventh of that cost or more.

Naturally, compared to current practice introducing a CBI at EU level would be a very bold move. As a proportion of the current EU budget, its net cost would range from 4% to 11%.

In our simulations we assume that a European Union Child Basic Income would be funded through a flat tax on all incomes. This is not necessarily meant as a policy recommendation, but merely a convenient way to grasp the funding requirements of such a scheme in terms of the tax take. We estimate that the required flat tax rate, same throughout the EU, would be 0.08% (in the \in 20 version) or 0.20% (in the \in 50 version) of all incomes.

The anti-poverty impact of a European CBI would be quite significant. We estimate that the scheme (in the version paying \in 50 per child a month, not adjusted for purchasing power parity) would reduce the number of children aged 0-5 in poverty by 14% (800 thousand children), and would close the poverty gap of those remaining below the threshold by 6%. With respect to a lower poverty line (at 40% of median equivalised income), the poverty reduction would be even higher: at 21% and 8% for the poverty rate and the poverty gap respectively.

A European Union CBI, funded through a EU-wide flat tax, would redistribute income away from richer member states with fewer children towards poorer ones with more children. In general, fiscal flows between member states (but also poverty reduction) would be greater under the EU CBI versions set in absolute terms rather than PPP-adjusted, and under the \notin 50 rather than the \notin 20 versions. In any case, according to our simulations, no member state would have to pay in flat tax more than 0.1% of its GDP in excess of what it would receive in CBI. Most member states would be net beneficiaries.

The scheme would also redistribute income horizontally, between different household types: even in countries paying in flat tax more than they receive under the scheme, such as Denmark and Germany, families with eligible children would still gain in net terms.

The estimated costs of a European CBI will have to be set against not just the poverty and (horizontal) redistributive effects, but also against the political benefit of raising the profile of the European Union as a direct provider of income support to families with children wherever they reside in the EU27.

In the context of the current economic crisis, the benefits of a European CBI could be very significant indeed: it might function as an automatic stabiliser, funded at EU level and paid directly to recipients in a uniform way across member states. However, the potential benefits (and drawbacks) of automatic stabilisers are beyond the scope of this Research Note.



References

- Adiego, M., Cantó, O., Levy, H., Paniagua, M. and Pérez, T. (2012) EUROMOD Country Report Spain, retrieved from https://www.iser.essex.ac.uk/euromod/resourcesfor-euromod-users/country-reports
- Berger, F. and Liégeois, P. (2012) EUROMOD Country Report Luxembourg, retrieved from https://www.iser.essex.ac.uk/euromod/resources-for-euromodusers/country-reports
- Boshnakov, V., Dimitrova, D., Draganov, D., Tosheva, E. and Tasseva, I. (2012) EUROMOD Country Report Bulgaria, retrieved from https://www.iser.essex.ac.uk/euromod/resources-for-euromod-users/countryreports
- Ceriani, L., Figari, F. and Fiorio, C. (2012) EUROMOD Country Report Italy, retrieved from https://www.iser.essex.ac.uk/euromod/resources-for-euromodusers/country-reports
- de Vos., K. and De Agostini, P (2012) EUROMOD Country Report Netherlands, retrieved from https://www.iser.essex.ac.uk/euromod/resources-for-euromodusers/country-reports
- Eklind, B. and Lindström, K. (2012) EUROMOD Country Report Sweden, retrieved from https://www.iser.essex.ac.uk/euromod/resources-for-euromod-users/countryreports
- European Commission (2012) EU Budget 2011, Financial Report, Luxembourg: Publications Office of the European Union, ISSN 1830-7280

Eurostat (2012) Purchasing power parities, http://epp.eurostat.ec.europa.eu/portal/page/portal/purchasing_power_parities/ data/database, downloaded on 10 Feb 2012 15:45:33 MET.

Fuchs, M. and Gasior, K. (2012) EUROMOD Country Report Austria, retrieved from https://www.iser.essex.ac.uk/euromod/resources-for-euromod-users/countryreports

http://ec.europa.eu/budget/financialreport/pdf/fin_report_11_en.pdf

- Keane, C., Kelly, E., Callan, T. and Savage, M. (2012) EUROMOD Country Report Ireland, retrieved from https://www.iser.essex.ac.uk/euromod/resources-foreuromod-users/country-reports
- Koutsampelas, C. and Polycarpou, A. (2012) EUROMOD Country Report Cyprus, retrieved from https://www.iser.essex.ac.uk/euromod/resources-for-euromodusers/country-reports
- Kühl, J., Nielsen, K. and Vest Nielsen, K. (2012) EUROMOD Country Report Denmark, retrieved from https://www.iser.essex.ac.uk/euromod/resources-for-euromodusers/country-reports
- Kump, N., Čok, M. and Majcen, B. (2012) EUROMOD Country Report Slovenia, retrieved from https://www.iser.essex.ac.uk/euromod/resources-for-euromodusers/country-reports
- Kundera, M., Levy, H., Morawski, L. and Myck, M. (2012) EUROMOD Country Report Poland, retrieved from https://www.iser.essex.ac.uk/euromod/resources-foreuromod-users/country-reports
- Lazutka, R., Navickė, J. and Salanauskaite, L. (2012) EUROMOD Country Report Lithuania, retrieved from https://www.iser.essex.ac.uk/euromod/resources-foreuromod-users/country-reports



- Leventi, C., Matsaganis, M. and Tsakloglou, P. (2012) EUROMOD Country Report Greece, retrieved from https://www.iser.essex.ac.uk/euromod/resources-foreuromod-users/country-reports
- Levy, H., Lietz, C. and Sutherland, H. (2007) "A guaranteed income for Europe's children?" in Inequality and Poverty Re-examined, S.P. Jenkins and J. Micklewright (eds), Oxford University Press, Oxford,
- Medgyesi, M., Hegedűs, P. and Szivós, P. (2012) EUROMOD Country Report Hungary, retrieved from https://www.iser.essex.ac.uk/euromod/resources-for-euromodusers/country-reports
- Münich, D. and Pavel, J. (2012) EUROMOD Country Report Czech Republic, retrieved from https://www.iser.essex.ac.uk/euromod/resources-for-euromodusers/country-reports
- Ochmann, R. and Fossen, F. (2012) EUROMOD Country Report Germany, retrieved from https://www.iser.essex.ac.uk/euromod/resources-for-euromodusers/country-reports
- Porubsky, M., Mahlica, G. and Strizencova, K. (2012) EUROMOD Country Report Slovakia, retrieved from https://www.iser.essex.ac.uk/euromod/resources-foreuromod-users/country-reports
- Rastrigina, O., Vanags, A., Zasova, A. and Kratule, S. (2012) EUROMOD Country Report Latvia, retrieved from https://www.iser.essex.ac.uk/euromod/resourcesfor-euromod-users/country-reports
- Rodrigues, C. and Junqueira, V. (2012) EUROMOD Country Report Portugal, retrieved from https://www.iser.essex.ac.uk/euromod/resources-for-euromodusers/country-reports
- Saliba, P. (2012) EUROMOD Country Report Malta, retrieved from https://www.iser.essex.ac.uk/euromod/resources-for-euromod-users/countryreports
- Stroe, C., Militaru, E., Avram, S. and Cojanu, S. (2012) EUROMOD Country Report Romania, retrieved from https://www.iser.essex.ac.uk/euromod/resources-foreuromod-users/country-reports
- Sutherland, H. (2007). EUROMOD: the tax-benefit microsimulation model for the European Union. In Modelling Our Future: Population Ageing, Health and Aged Care. International Symposia in Economic Theory and Econometrics. Vol. 16 (pp. 483-488). Elsevier, Amsterdam.
- Sutherland, H., Tumino, A., and Zantomio, F. (2012) EUROMOD Country Report United Kingdom, retrieved from https://www.iser.essex.ac.uk/euromod/resources-foreuromod-users/country-reports
- Valjus, I. and Viitamäki, H. (2012) EUROMOD Country Report Finland, retrieved from https://www.iser.essex.ac.uk/euromod/resources-for-euromod-users/countryreports
- Vanhille, J., Maes, F. and Spiritus, K (2012) EUROMOD Country Report Belgium, retrieved from https://www.iser.essex.ac.uk/euromod/resources-for-euromodusers/country-reports
- Võrk, A. and Paulus, A. (2012) EUROMOD Country Report Estonia, retrieved from https://www.iser.essex.ac.uk/euromod/resources-for-euromod-users/countryreports



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Appendix 1 – Euromod databases

Sources:

Fuchs and Gasior (2012), Vanhille and Spiritus, K (2012), Boshnakov and Tasseva (2012), Münich and Pavel (2012), Koutsampelas and Polycarpou (2012), Kühl and Vest Nielsen (2012), Võrk and Paulus (2012), Valjus and Viitamäki (2012), Ochmann and Fossen (2012), Leventi and Tsakloglou (2012), Medgyesi and Szivós (2012), Keane and Savage (2012), Ceriani and Fiorio (2012), Rastrigina and Kratule (2012), Lazutka and Salanauskaite (2012), Berger and Liégeois (2012), de Vos. and De Agostini, P (2012), Saliba (2012), Kundera and Myck (2012), Rodrigues and Junqueira (2012), Stroe and Cojanu (2012), Porubsky and Strizencova (2012), Kump and Majcen (2012), Adiego and Pérez (2012), Eklind and Lindström (2012) and Sutherland (2012)