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## *Simulating the costs and benefits of a Europe-wide Basic Income scheme for Children*

Child Poverty Insights disseminates emerging research, practice and thinking on child poverty to a global audience of UNICEF and other UN staff, practitioners and academics.

This edition discusses how a Europe-wide universal child benefit program could reduce child poverty and the poverty gap throughout Europe.

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### What is Basic Income for Children?

Basic Income for Children (BIC) is a universal income transfer unconditionally granted to all families with children, without means test or work requirement. At first sight it might appear far-fetched to introduce a Europe-wide BIC (for EU countries), but similar schemes already exist in most European countries and might be thought of as a rather modest extension of current policies. The case for universal child benefits is twofold. On the one hand, if children to some extent can be viewed as a public good, shifting some of the costs involved from families with children to society at large must enhance social welfare (contributing to horizontal equity). On the other hand, because universal child benefits avoid the gaps in coverage associated with targeted policies, they improve the position of families at the bottom of the income scale who often fail to take up or are ineligible for assistance under targeted policies (contributing to vertical equity).

### Why a Europe-wide Basic Income for children?

In their report to the EU in 2010 Anthony B. Atkinson and Eric Marlier strongly argue for the EU to introduce BIC as a “concrete proposal”, and as a result BIC is on the EU policy agenda. The European Commission have cautiously floated the case for a Europe-wide BIC; “it could be a demonstration of the European Union’s commitment to children, to the future, and could contribute to the reduction of child poverty. It would also document the solidarity existing between people without and with children.” Furthermore, if jointly financed it might be useful in the current economic crisis to ease the situation of countries that face massive shocks.

In Atkinson and Marlier’s original version of BIC, each Member State would be required to unconditionally guarantee a basic income to every child. While implementation would be left to Member States, the scheme would have to be capable of reaching the entire population. We use a different approach to simulate the effects of a common BIC benefit across all EU countries.

## Who would receive the benefits? And how much money would each child get?

In our simulation we assess the effects of a Europe-wide BIC that pays the same amount, either in absolute or relative terms, to all children under the age of 6 irrespective of family income. The benefits would be paid to the mother (or other primary caregiver) and would be taxable as part of their liability for income tax. The net cost of the scheme would be funded out of a flat tax on all incomes at a common rate set exactly to offset its net cost at EU level.

For illustration we set the benefit rate in our simulation at €50 (\$68) per month per child. To look at the poverty reducing effects of such a BIC-scheme we calculate the effect on poverty headcounts and poverty gaps using two different assumptions. First, we consider the outcomes if the benefits are given equally in absolute terms. Second, we make the same calculations adjusted for purchasing power parity (PPP). Once adjusted for PPP the benefit rate per child varies significantly, from €25.40 (\$33.80) in Bulgaria to €71.15 (\$94.60) in Denmark.

## How do you simulate the effects of a Basic Income for children in Europe?

We use the European tax-benefit micro simulation model (EUROMOD) to simulate the effects of our version of BIC. EUROMOD computes tax liabilities and benefit entitlements for all households in EU member states based on representative household survey data from each country. The model uses a common and consistent framework across the EU. It uses the same methods and approaches to construct income and demographic profiles, and to calculate 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.

We explore the effects of a Europe-wide BIC-scheme as if it was introduced into the 2010 tax-benefit systems of every EU country, but we do not expect to see much difference in effects if a different year was used as the base. We define the poverty rate as the proportion of population living in households with disposable income below 60% of the median, the common EU definition of 'risk of poverty'. We use the modified OECD equivalence scale to treat households of different size and composition equally (the weights are 1 for the first adult, 0.5 for additional adults, and 0.3 for children below the age of 14). We use the pre-reform (baseline) level poverty threshold to assess changes in poverty due to the simulated basic income for children.

## What are the effects of a Basic Income for children on child poverty?

When we come to consider the results of our simulation across the EU, it is important to assess how the different national standards of living are reflected in price differences between countries. Fixing the poverty threshold at 60% of the median income, we find that a Europe-wide BIC-scheme not adjusted for price differences (using purchasing power parities (P.P.Ps)) would reduce the number of children in poverty by 14.2% and the poverty gap by 6.2%. When we adjust for price differences the number of children in poverty is reduced somewhat less: headcount poverty falls by 12.7% and the poverty gap by 4.3% (Table 1). Fixing the poverty threshold lower, at 40% of median income, would lead to a higher proportion of a smaller group of children taken out of poverty (Appendix I).

Focusing on the best-performing version of our simulation - the one not adjusted for price differences - the reduction in headcount child poverty 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.

On the other hand, if the level of benefit were adjusted for price differences, the poverty reduction would also be significant in Western Europe.

**Table 1**

	Impact on poverty of a Europe-wide Basic Income for Children	
	Poverty line at 60% of median income	
	€50, in absolute terms	€50, adjusted for PPP
<b>Headcount rate</b>		
Baseline (without the benefit)		17.0%
Reform (with the benefit)	14.6%	14.9%
Difference in percentage points	-2.4	-2.2
Proportional reduction (%)	14.2	12.7
<b>Poverty Gap</b>		
Baseline (without the benefit)		26.5%
Reform (with the benefit)	24.9%	25.2%
Difference in percentage points	-1.6	-1.1
Proportional reduction (%)	6.2	4.3

**Notes:** All children below the age of 6 in the European Union would be eligible.

**Sources:** Own calculations based on EUROMOD F5.36

### How much would a Basic Income for Children cost?

The gross cost of a Europe-wide BIC would obviously depend on the level of the benefit introduced. The scheme modelled here, paying €50 per month per child, would cost around €18 billion. That is approximately 13% of the current EU budget, or 0.15% of the combined GDP of all EU member states (Table 2).

Financing could be done at national or EU level. National level financing has several options; for instance, making the benefit taxable would ‘claw back’ about 15% of the total gross cost. The remainder could be funded by a flat tax on all incomes, and our proposal is set at a common rate of about 0.2% across the EU. For the EU as a whole, the gross cost of Europe-wide BIC would be fully financed

by the sum of the additional yield of national taxes and the European flat tax. However, across countries the relative size of gross cost, the amount collected through national tax, and the amount collected through the EU flat tax would each vary greatly. The proportion of total gross cost ‘clawed back’ through national taxation would also vary across countries which reflect both differences in income taxation regimes and in the labour market participation of mothers with young children. Variation in gross cost between countries would be much less if the benefit was adjusted for price differences than if it was set in absolute terms.

### Who would gain and who would lose from a European Basic Income for children?

The above discussion implies that a Europe-wide BIC would involve significant redistribution between countries. Richer countries and/or those with fewer young children per income earner are likely to be net contributors. Poorer countries and/or those with more young children are likely to be net beneficiaries. 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 benefit.

As it turns out, the main net gainers from a benefit paid in absolute terms would be East European countries such as Bulgaria, Romania, Hungary, Poland, the Baltic countries, the Czech Republic and Slovakia. The South European countries (except Italy), France, Cyprus, Malta, Slovenia and the UK would also benefit. The main net contributors would be Denmark, Germany, the Netherlands, Finland, Sweden and Belgium, followed by Austria, Italy, Ireland and Luxembourg. The ordering of countries is similar when the benefit rate is adjusted for PPP, but the scale of losses and gains is smaller. Once differences in prices have been accounted for the large gainers include countries such as France and the UK, as they both collect relatively little national tax on the benefit and feature relatively high shares of young children in the population. Germany and Italy are major net contributors, in part because they have relatively few young children in their populations.

Within countries there is redistribution from households without young children to households with young children. While all the former are contributors to the scheme, virtually all of the latter are net beneficiaries. Under the scheme not adjusted for price differences only 0.4% of all children aged below 6 are in families experiencing a net income loss. Even in Denmark, the country where that proportion is largest, fewer than 2% lose.

### What are the Prospects for a Europe-wide Basic Income for children?

The version of a Europe-wide BIC discussed in this paper is put forward mainly for illustrative purposes. We do not wish necessarily to recommend “our” version over alternative ones. However, setting a modest EU-wide floor funded out of the EU budget, allowing Member States wishing to aim higher to pay for the extra cost out of their own budgets, can be seen as a rather sensible solution.

The implications of the particular scheme that we have analysed can be generalised or extrapolated to other schemes with similar characteristics. For example, Levy et al (2012) explored a €20 scheme and suggested as a rule of thumb that an

**Table 2**

**Cost of a Europe-wide Basic Income for Children**

	€50, in absolute terms	€50,adjusted for PPP
Gross Cost (billion Euro per year)	18.3	17.9
as % of EU budget	13%	12.7%
as % of EU GDP	0.15%	0.15%
National Tax (billion Euro per year)	2.74	2.76
as % of gross cost	15%	15.4%
EU tax (billion Euro per year)	15.4	15
flat tax rate	0.204%	0.198%
as % of EU budget	10.9%	10.6%
as % of EU GDP	0.13%	0.12%

**Notes:** Cost of a Basic Income scheme that pays €50 per child per month. All children below the age of 6 in the European Union would be eligible.

**Sources:** Own calculations based on EUROMOD F5.36

additional EU flat tax rate of 0.004% would be needed for each additional euro of benefit per month. Extending the scheme to cover all children under the age of 16 would imply a gross cost about three times as high, and might require an EU tax of somewhat less than three times that considered here. Generally, the between country redistribution seen in our simulation would have a similar pattern under more ambitious schemes on a larger scale.

Our simulation has suggested ways in which a European BIC-scheme might be improved. Progressively clawing back benefits through the national income tax systems has attractions on equity grounds, and as a way of minimising the EU tax needed. Our results show that countries with already high taxes also tend to be net contributors. To the extent that these are also countries that already have substantial provision for children, this might erode their support for the scheme. Therefore, in high tax countries, relying fully on an EU flat tax might be more attractive.

As shown in this paper, the cost of a BIC-scheme does not need to be prohibitive. But can it ever be feasible politically? The idea that relatively low-income households in rich countries should contribute to supporting young children in relatively high-income households in poorer countries might seem improbable, particularly given that one of the side effects of the current crisis in the EU has been a reduction in feelings of solidarity among EU citizens. By the same token, those European statesmen and women willing to embark on the long trek towards (re)building a shared European identity cannot hope to find a better starting point than a scheme supporting the incomes of families with young children wherever in the EU they might reside. As the European Commission document cited earlier put it, such a scheme *“could be a demonstration of the EU’s commitment to children, to the future”*.

## References/Further Reading

- Atkinson A. B. and Marlier E. (2010) Income and living conditions in Europe. Luxembourg: Eurostat.
- European Commission (2012) Employment and Social Developments in Europe 2012. Brussels: The European Commission.
- Levy H., Matsaganis M. and Sutherland H. (2012) The distributive and cross country effects of a Child Basic Income for the European Union. Research Note 2/2012 of the European Observatory on the Social Situation and Demography, European Commission.
- Sutherland H. and Figari F. (2013) EUROMOD: the European Union tax-benefit microsimulation model. International Journal of Microsimulation 6 (1) 4-26.

## Appendix I

### Impact on poverty of a Europe-wide Basic Income for Children

	Poverty line at 40% of median income	
	€50, in absolute terms	€50, adjusted for PPP
<b>Headcount rate</b>		
Baseline (without the benefit)		5.4%
Reform (with the benefit)	4.3%	4.5%
Difference in percentage points	-1.1	-0.9
Proportional reduction (%)	20.8	16.7
<b>Poverty Gap</b>		
Baseline (without the benefit)		31.7%
Reform (with the benefit)	29.3%	29.8%
Difference in percentage points	-2.4	-2.1
Proportional reduction (%)	7.7	6.6

**Notes:** All children below the age of 6 in the European Union would be eligible under both versions.

**Sources:** Own calculations based on EUROMOD F5.36