Estimating the Cost of a Basic Income for Ireland

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Abstract

The concept of a basic income has been of policy interest in Ireland for some time. A series of studies in the 1990s lead to the Irish government issuing a consultation paper (green paper) on basic income in 2002. Subsequently, research by Clark (2002), Ward (2006 and 2008), Collins (2008 and 2011) and Social Justice Ireland (2010, 2011) has continued to consider the issue and highlight its potential and implications.

The recent severe economic recession in Ireland has emphasised the vulnerabilities, for individuals and society generally, of the current systems of direct (market) and transfer (welfare) income. The need for more comprehensive societal income safety-nets has become obvious and consequently has rekindled an interest in the prospect of a basic income.

This paper uses a detailed nationally representative sample of more than 5,000 households and 12,000 individuals (from the Central Statistics Office Survey on Income and Living Conditions micro-dataset) to establish the likely cost of a basic income were it to be introduced in Ireland. The paper initially establishes a benchmark cost based on current social transfer rates (for children, adults and pensioners). It then considers variations to this cost based on different levels of basic income payments and entitlements. In particular, these extensions build on the work of Collins et al (2012) who established minimum income thresholds for Irish households based on consensual budget standards research.

Finally, the paper explores a number of possible revenue sources for funding the additional expenditure required to pay for the introduction of a basic income.

Keywords: Basic Income, Ireland, minimum income, taxation

JEL codes: D31, H20

Note: This paper represents work in progress and is the first draft of a planned research paper on this topic. Comments and suggestions are welcome to the address above.

Introduction and Objectives

The recent severe economic recession in Ireland has emphasised the vulnerabilities, for individuals and society generally, of the current systems of direct (market) and transfer (welfare) income. Given this, the need for more comprehensive societal income safety-nets has become obvious and consequently has rekindled an interest in the prospect of a basic income. That concept has been of policy interest in Ireland for some time. A series of studies in the 1990s lead to the Irish government issuing a consultation paper (green paper) on basic income in 2002. Subsequently, research by Clark (2002), Ward (2006 and 2008), Collins (2008 and 2011) and Social Justice Ireland (2010, 2011) has continued to consider the issue and highlight its potential and implications.

This paper uses a detailed nationally representative sample of more than 5,000 households and 12,000 individuals (from the Central Statistics Office Survey on Income and Living Conditions micro-dataset) to establish the likely cost of a basic income were it to be introduced in Ireland. The paper initially establishes a benchmark cost based on current social transfer rates (for children, adults and pensioners). It then considers variations to this cost based on two other possible levels of basic income payments and entitlements. These extensions are linked to values around the poverty line and values associated with recent research work on the establishment of minimum income thresholds for Irish households based on consensual budget standards research (Collins et al, 2012). In each case the paper estimates the cost of a basic income scheme and considers, where appropriate, the impact of such schemes. As this paper is focused on estimating the cost of a basic income, it does not discuss the arguments for and against a basic income, eligibility issues and the possible routes towards implementing such a system. These are issues competently examined in various other publications (see Ward, 2008; Social Justice Ireland, 2011, Clark 2002 among others).

The paper is structured as follows. The next section outlines the data and methodology employed in this analysis. We then examine and discuss the results of this approach and subsequently briefly consider the impact of these basic income scenarios on various income measures. Finally, as this is a brief paper representing work in progress, the paper raises a number of issues regarding future choices on the possibility and direction of a basic income and basic income research.

Data and Methodology

This analysis is based on an examination of the micro data from the Irish Central Statistics Office's (CSO) 2009 Survey on Income and Living Conditions (SILC). This survey is part of a Europe wide household living standards survey and collects income and living standards information from a representative national sample. In 2009 the dataset comprises responses from 12,641 individuals in 5,183 households. The data includes a probability weight variable to correct for under-representation and non-response and these weights are used in the analysis below. The collected income data is reconciled with tax records in an attempt to ensure its accuracy.[1]

Two income measures are used in the analysis in this paper: gross income and disposable income. Gross income includes direct (market) income from employment, self-employment and investment income plus all social transfers, which in the case of a basic income system are the basic income payments. Disposable income is calculated as a person's Gross income minus the tax they pay. In the analysis below, a flat percentage income tax approach is adopted and its value is discounted from gross income to calculate disposable income. As such, disposable income represents the income an individual or household has in their pocket to spend each week/year.

To account for variations in household size and composition, some of the impact data is equivalised using a national equivalence scale which weights the first adult in each household as 1, each subsequent adult as 0.66 and each child (less than 14 years) as 0.33.[2]

The analysis was performed in STATA; a statistical and econometric analysis software package.

Modelling a Basic Income for Ireland

The starting point for any examination of the cost of a basic income is to determine what level of payment should be made and if or how this might vary across the age spectrum. Previous examinations have tended to focus on a level of payment close to the levels of existing social welfare payments (see Clark, 2002; CORI Justice Commission and Ward,

[1] The author is grateful to the Central Statistics Office and the Irish Social Science Data Archive for facilitating access to the SILC data.
[2] For more details see Collins and Kavanagh (2006).

2006). However, such payments are, by themselves, unlikely to lift households above the relative income poverty line; in particular this is the case for household who are welfare dependent. Consequently, there may be merit in examining payments at levels above these values.

Three basic income scenarios are examined below. In each case a basic income payment value is established for children aged 0-17 years, adults of working age from 18-64 years and those aged over 65 years. It could be argued that any basic income system should differentiate between children and adults at different stages in their lives and given their levels of societal interaction and needs. For example, one could argue regarding the difference between children and adults in full-time education and those who are not, or between pensioners who are aged above 85 years versus those who are younger. Similarly as Mac Mahon et al (2012) have shown, the cost of rearing a child varies across childhood and perhaps any child payment should reflect these varying costs. For these, and many other alternatives, it would be possible to alter the estimates below to reflect them. However, the focus of this paper is to provide a set of benchmark estimations – assumptions regarding alterations to the structure of a basic income, and its cost, can be made subsequently using these benchmarks as a guidance point.

Basic Income – Scenario 1

The first scenario calculates the cost of a basic income where the payments correspond to existing social welfare levels. Those aged 0-17 years receive a weekly payment of €32.33 equivalent to the current value of child benefit (€140 per month).[3] Adults aged 18-64 years receive a payment equivalent to the current basic social welfare payment of €188 per week. Those aged over 65 years receive a payment equivalent to the contributory old age pension.

Basic Income – Scenario 2

The second scenario calculates the cost of a basic income using values derived from the 2009 relative income poverty line. In that year the median equivalised disposable income was equal to €12,064 equivalent to a weekly figure of €231.36 per adult equivalent. This adult figure is used for all those aged over 18 and 33% of this is used for children reflecting the structure of Ireland's national equivalence scale.

[3] The weekly value of child benefit is calculated as: (€140 x12) = annual value. This is divided by 365 and multiplied by 7 to establish the weekly value. Other estimates adopt a similar approach.

Basic Income – Scenario 3

The third scenario draws on the work of Collins et al (2012) and Mac Mahon et al (2012) and uses figures from their examination of the expenditure and income needed in Ireland to achieve a minimum essential standard of living (MESL). This budget standard is based on their analysis for urban households and specifically the costs of providing a MESL for an urban child (not including childcare), the costs of providing a MESL for a single urban adult and the costs of a MESL for an urban pensioner.

The basic income payment values for each of these scenarios are summarised in table 1.

Table 1: Three Basic Income Scenarios (weekly payment amounts)

	Basic Income Scenario 1	**Basic Income Scenario 2**	**Basic Income Scenario 3**
	Welfare Rates	***Poverty Line***	***MIS/MESL***
Age Category			
0-17yrs	€32.33	€76.35	€90.75
18-64yrs	€188.00	€231.36	€355.23
65+yrs	€230.30	€231.36	€262.64

Using these payment levels, the 2009 SILC data was used to model and calculate the cost of a basic income. In undertaking these calculations a number of assumptions have been made. These are:

- The introduction of a basic income system will generate some administrative savings for Government. In particular, the income taxation and social welfare systems would be simplified and this would reduce the ongoing costs of these services. The analysis assumes an annual administrative saving of €100m and this is netted from the gross cost estimate in each scenario.
- While the introduction of a basic income would see the elimination of employee PRSI, there would not be an elimination of employer contributions to the social insurance fund or its equivalent basic income successor. Clark (2002) labelled these contributions by employers as a 'social responsibility tax' and this title is used in Table 2 below. A figure of €5.56 billion is included as the revenue from this tax as

this is the figure calculated from SILC for employer social insurance contributions in 2009.[4]

- Unlike previous estimates, this analysis assumed that there will be a benefit to the broader tax system from the introduction of a basic income. Households with a guaranteed income base are likely to be more confident to engage in consumption and in some cases, in particular for lower income households in the more expensive scenarios, there will be increased weekly expenditure. Such changes in consumption are likely to impact on revenues from consumption taxes. The analysis conservatively estimates this to be 5% of the annual cost of the basic income and deducts this from the revenue needed to be raised from income taxes to fund the proposal.

Given these assumptions, the cost of a basic income has been calculated as follows:

- First the total annual cost of the weekly payments to the eligible population has been estimated.
- From this the annual administrative savings are deducted to establish the net cost of the proposal under each of the scenarios.
- To establish the revenue required to fund a basic income, the revenue from the social responsibility tax and the additional consumption tax (VAT) revenue are deducted from the net cost.

Table 2 presents these calculations and establishes that scenario 1 would cost €27.9 billion per annum; scenario 2 would cost €36.5 billion per annum and scenario 3 would cost €55.2 billion per annum.[5]

Finally, the analysis estimates the level of a flat tax in 2009 which would be sufficient to raise this revenue, *ceteris paribus*. To complete this calculation, the analysis first estimates the total amount of gross income which would be taxable under a basic income system. This would include income from employment, self-employment and investment returns.[6] Based on the SILC 2009 dataset, the total taxable income would be €62.755 billion. Using this as the income tax base, the analysis calculated flat tax rates for each of the three scenarios.

[4] This figure is similar to the number in the Department of Social Protection's Statistical Report for 2009.
[5] The calculated outcomes are not very different from an approach I undertook using Census and administrative data for a conference by TASC in Cork, September 2011. See appendix.
[6] Without a basic income, some social welfare payments are taxable such as pensions and some jobseekers entitlements.

Table 2: Annual Cost of Basic Income Scenarios, €

	Basic Income Scenario 1 *Welfare Rates*	Basic Income Scenario 2 *Poverty Line*	Basic Income Scenario 3 *MIS/MESL*
Annual cost	35,311,234,722	44,363,463,767	64,085,220,892
- Admin savings	100,000,000	100,000,000	100,000,000
Net cost	***35,211,234,722***	***44,263,463,767***	***63,985,220,892***
-Social Resp Tax	5,560,557,449	5,560,557,449	5,560,557,449
- 5% recovered VAT	1,760,561,736	2,213,173,188	3,199,261,045
Income tax needed	***27,890,115,537***	***36,489,733,129***	***55,225,402,398***
Flat tax rate	**44.44%**	**58.15%**	**88.00%**

Scenario 1 would require a flat tax rate of 44.44% which is less than the level estimated by Clark (2002) for a similarly structured basic income scheme; he estimated 47.14% on a 2001 basis. The other two scenarios return very high flat tax rates of 58% and 88% respectively. Clearly, the latter is not feasible and as a result is not examined in any detail in the impact tables below. The former is examined although it does seem high and a flat tax at such a level might be problematic to get accepted and implemented.

Impact Analysis

An examination of the impact of these scenarios is in its early stages. Some initial results are outlined below. However, in general the impact of the basic income schemes (scenarios 1 and 2) on the income distribution and poverty levels is limited. While income levels move around, it would seem that the withdrawal of the social welfare system impacts hard on low income families. This combined with high flat tax rates and the removal of tax credits and allowances, means that the disposable income of these households alters marginally and in a number of cases decreases. These changes, of course, impact across the income distribution but have a relatively greater and more noticeable effect, on low income families. This assists in explaining some of the income outcomes in tables 3, 4 and 5.

Finally, tables 6 and 7 examine the impact of basic income scenarios 1 and 2 on the disposable income of various households and compare it to the existing situation in 2009.

Table 3: Mean and Median equivalised income and Poverty Thresholds under the basic income scenarios

	SILC 2009	Basic Income Scenario 1	Basic Income Scenario 2	Basic Income Scenario 3
Mean income		€21,623	€21,897	€22,176
Median income	€20,107	€18,756	€20,036	€22,317
60% median income	€12,064	€11,253	€12,022	€13,390
40% median income	€8,043	€7,502	€8,015	€8,927

Table 4: Impact Analysis on annual average disposable household income

	2009 SILC	2009 BI1	2009 BI2
State average	€45,959	€42,464	€42,737
Household composition			
1 adult aged 65+	€17,985	€13,277	€13,005
1 adult aged <65	€25,364	€21,635	€20,939
2 adults, at least 1 aged 65+	€37,184	€29,652	€29,021
2 adults, both aged <65	€47,882	€45,194	€43,351
3 or more adults	€68,593	€68,972	€67,979
1 adult with children aged under 18	€24,898	€17,337	€21,779
2 adults with 1-3 children aged under 18	€54,138	€50,637	€51,644
Other households with children aged under 18	€70,329	€69,842	€71,565
Number of persons at work in the household			
0	€25,829	€20,282	€22,984
1	€43,921	€40,842	€41,621
2	€67,450	€65,309	€62,614
3+	€96,721	€98,643	€93,018
Urban/rural location			
Urban areas	€49,364	€45,051	€44,938
Rural areas	€40,522	€38,334	€39,222
Region			
Border	€38,247	€34,865	€36,422
Midland	€35,532	€34,063	€35,770
West	€40,004	€38,151	€39,363
Dublin	€58,759	€54,091	€51,991
Mid-East	€51,519	€47,656	€47,423
Mid-West	€38,857	€35,995	€37,261
South-East	€39,332	€34,750	€36,650
South-West	€42,019	€39,352	€40,277

Table 5: Impact Analysis on annual average equivalised disposable income

	2009 SILC	2009 BI1	2009 BI2
State	€23,326	€21,623	€21,897
Sex			
Male	€23,627	€22,061	€22,263
Female	€23,029	€21,191	€21,535
Age group			
0-17	€21,244	€19,424	€20,609
18-64	€24,678	€23,506	€23,499
65+	€20,681	€16,283	€15,964

Table 6: Basic Income simulations for single adult households: scenario 1 and 2

Single adult household: BIS1

	2009	BIS1	2009	BIS1	2009	BIS1	2009	BIS1	2009	BIS1
Income	€25,000	€25,000	€40,000	€40,000	€60,000	€60,000	€100,000	€100,000	€120,000	€120,000
Effective tax rate	9.30%	44.44%	19.10%	44.44%	28.20%	44.44%	34.60%	44.44%	36.50%	44.44%
-Tax paid	€2,325	€11,110	€7,640	€17,776	€16,920	€26,664	€34,600	€44,440	€43,800	€53,328
+Basic Income		€9,803		€9,803		€9,803		€9,803		€9,803
Disposable income	**€22,675**	**€23,693**	**€32,360**	**€32,027**	**€43,080**	**€43,139**	**€65,400**	**€65,363**	**€76,200**	**€76,475**
BI change		+€1,018		-€333		+€59		-€37		+€275

Single adult household: BIS2

	2009	BIS1	2009	BIS1	2009	BIS1	2009	BIS1	2009	BIS1
Income	€25,000	€25,000	€40,000	€40,000	€60,000	€60,000	€100,000	€100,000	€120,000	€120,000
Effective tax rate	9.30%	58.15%	19.10%	58.15%	28.20%	58.15%	34.60%	58.15%	36.50%	58.15%
-Tax paid	€2,325	€14,538	€7,640	€23,260	€16,920	€34,890	€34,600	€58,150	€43,800	€69,780
+Basic Income		€22,675		€22,675		€22,675		€22,675		€22,675
Disposable income	**€22,675**	**€33,138**	**€32,360**	**€39,415**	**€43,080**	**€47,785**	**€65,400**	**€64,525**	**€76,200**	**€72,895**
BI change		+€10,463		+€7,055		+€4,705		-€875		-€3,305

Notes:

Effective tax rates from Department of Finance estimated for Budget 2009
Assumed adults are paying full rate social insurance (PRSI)
Couples income is calculated on the basis of a 65%/35% split

Table 7: Basic Income simulations for couple with 2 children: scenario 1 and 2

Couple 2 earners and 2 Children

	2009	BIS1	2009	BIS1	2009	BIS1	2009	BIS1	2009	BIS1
Income	€25,000	€25,000	€40,000	€40,000	€60,000	€60,000	€100,000	€100,000	€120,000	€120,000
+Child Benefit	€1,680		€1,680		€1,680		€1,680		€1,680	
Effective tax rate	0.00%	44.44%	4.30%	44.44%	13.20%	44.44%	24.40%	44.44%	27.90%	44.44%
-Tax paid	€0	€11,110	€1,720	€17,776	€7,920	€26,664	€24,400	€44,440	€33,480	€53,328
+Basic Income		€22,977		€22,977		€22,977		€22,977		€22,977
Disposable income	**€26,680**	**€36,867**	**€39,960**	**€45,201**	**€53,760**	**€56,313**	**€77,280**	**€78,537**	**€88,200**	**€89,649**
BI change		+€10,187		+€5,241		+€2,553		+€1,257		+€1,449

Couple 2 earners and 2 Children

	2009	BIS1	2009	BIS1	2009	BIS1	2009	BIS1	2009	BIS1
Income	€25,000	€25,000	€40,000	€40,000	€60,000	€60,000	€100,000	€100,000	€120,000	€120,000
+Child Benefit	€1,680		€1,680		€1,680		€1,680		€1,680	
Effective tax rate	0.00%	58.15%	4.30%	58.15%	13.20%	58.15%	24.40%	58.15%	27.90%	58.15%
-Tax paid	€0	€14,538	€1,720	€23,260	€7,920	€34,890	€24,400	€58,150	€33,480	€69,780
+Basic Income		€32,090		€32,090		€32,090		€32,090		€32,090
Disposable income	**€26,680**	**€42,552**	**€39,960**	**€48,830**	**€53,760**	**€57,200**	**€77,280**	**€73,940**	**€88,200**	**€82,310**
BI change		+€15,872		+€8,870		+€3,440		-€3,340		-€5,890

Notes:

Effective tax rates from Department of Finance estimated for Budget 2009
Assumed adults are paying full rate social insurance (PRSI)
Couples income is calculated on the basis of a 65%/35% split

Further Research Questions

These initial insights, suggest some future research questions:

- At what level should a basic income scheme be targeted?
- Are there ways of doing a conditional basic income which might cost less?
- Are there ways of protecting the incomes of low income households, in particular those who are working, when a basic income is introduced? The impact on their tax bill, welfare entitlements and tax credits seems high and problematic.
- Does the income tax system have to be flat under a basic income, or could it retain some elements of progressivity?
- Are there ways of paying some of the basic income bill from areas other than income taxes?

Based on suggestions from BIEN conference participants, and others interested in the basic income concept, the next phase of this research will take this feedback into account.

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Appendix: Estimates for the cost of a basic income from Collins (2011) using administrative and Census data.

Table A1: Basic Income per-adult payments from Collins (2011).

	Official Welfare Rate	Official Poverty Line	Budget Standard
Single adult (urban)	€188.00	€222.18	€351.76
Single adult (rural)	€188.00	€222.18	€396.29

Table A2: Basic Income costing results from Collins (2011).

	Official Welfare Rate	Official Poverty Line	Budget Standard
Single adult (urban)	€188.00	€222.18	€351.76
BI + current CB	€36.49 billion	€42.65 billion	€65.97 billion
Admin savings etc.	- €3 billion	- €3 billion	- €3 billion
Net Cost	**€33.49 billion**	**€39.65 billion**	**€62.97 billion**

Notes: CB = Child Benefit; Administrative savings are likely to be less than this initial estimate.