

The political adequacy of quantitative impact assessment in the social field by means of micro-simulation models (Vienna, 4-5 December 2014)

Micro-simulation and social impact assessment in Ireland¹

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1. Micro-simulation and the SWITCH model

The main micro-simulation model in use in Irish policy analysis is SWITCH, the ESRI tax benefit model (**S**imulating **W**elfare and **I**ncome **T**ax **C**Hanges). This model was first developed by the ESRI in the mid-1980s, and has been used by the Department of Social Protection since the early 1990s. Over the last decade, the model has also been used within the Department of Finance and the Department of Public Expenditure and Reform. The range of the model has been extended beyond traditional tax and welfare topics, to include changes in public sector pay, property taxation, entitlements to public health services, childcare costs, water charges and gender impacts. While the main SWITCH model is a static one, it produces information on several measures of the financial incentive to work (such as replacement rates and marginal effective tax rates) and has also been used as the basis for econometric analysis of labour supply (Callan, van Soest and Walsh, 2009).

The SWITCH model is used to provide evidence relevant to policy choices and to inform public debate. One key feature is that the same model is used by researchers outside government and those within government. This reflects the substantial resource costs associated with developing and maintaining a micro-simulation model, and the fact that in a small country, it can make sense to share those costs across governmental and non-governmental institutions. Table 1 provides an illustration of the types of micro-simulation analysis which are produced. The analyses of the annual budgetary changes in tax and welfare are, of course, classic examples of social impact analysis. However, the ex-ante and ex-post analyses of other policy options – such as the introduction of a property tax or of water charges – can equally be termed “social impact assessments”.

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Table 1: *Illustrations of policy analysis/impact assessments using SWITCH*

Source	Annual Budget	Specific policies
ESRI/academic researchers	Newspaper article 24 hours after Budget Special article in <i>ESRI Quarterly Economic Commentary</i> Journal articles and papers	Property taxation Water charges affordability Housing assistance payment
DSP/advisory groups	Pre-budget analyses (unpublished) Social impact assessment of Budget	Child & family income supports Working age supports

In terms of the usefulness of these analyses, we may distinguish between two broad uses:

- a) Informing public debate on policy issues;
- b) Informing policy makers and their advisers of the implications of alternative choices (see next section).

2. Social impact assessment and the SWITCH model

There is no tradition of **social** impact assessment in Irish public policymaking. Rather, various discrete 'impact assessments' are promoted for specific policy issues: poverty, gender, rural, employment, health and disability. These sectoral impact assessments (IAs) may be applied to official government policies, such as memoranda for government, statements of strategy, the annual Budget, EU plans and programmes, and legislation. In practice, the main requirement for impact assessments relates to memoranda for government, based on procedures being set out in the Cabinet Handbook.

In 2012, the Government agreed to develop an integrated social impact assessment to strengthen implementation of the national social target for poverty reduction across all aspects of government and to facilitate greater policy coordination in the social sphere (Department of Social Protection, 2012). Though relatively new in the Irish context, social impact assessment builds on the practice of poverty impact assessment and health impact assessment.

The main practitioner of social impact assessment is the Department of Social Protection. The Department describes social impact assessment as 'an evidence-based methodology to estimate the likely distributive effects of policy proposals on income and social inequality'. The Department uses the SWITCH model to undertake its social impact assessment.

The Department views the social impact of welfare policies as of particular importance during the economic and fiscal crisis, given the crucial role of social transfers in preventing poverty. Recent research shows that Irish social transfers reduced the at-risk-of-poverty rate from 55% (pre-transfers) to 16% (post-transfers) in 2011, thereby lifting two-fifths of the population out of at-risk-of-poverty. This is amongst the best poverty reduction performance across EU Member States (Social Protection Committee, 2014). Welfare policies can also contribute to the economic policy objective of 'building a fairer Ireland by reducing inequality and improving poverty outcomes' (Department of Finance, 2013).



Consideration of the social impact of the welfare measures alone is viewed by the Department as a limited exercise, given the targeted nature of income supports. Tax changes also affect the whole population, including welfare recipients. To ensure a comprehensive analysis therefore, the Department's assessment combines welfare and tax measures announced in the Budget. Also included is the implementation of measures relating to public sector pay. However, the assessment does not include the non-welfare expenditure measures.

The Department has published a social impact assessment of the main welfare and tax measures in Budgets 2013 and 2014 (Department of Social Protection 2013, 2014). The publication is intended to inform public discourse about the impact of budgetary policy. Social impact assessment has been highlighted by members of the Troika, notably the International Monetary Fund. Politicians, civil society organisations and the media have also championed social impact assessment or similar concepts, such as 'equality budgeting' (see Equality Budgeting Campaign) or 'human rights budgeting' (FLAC, 2014).

In addition to the published report, the Department undertakes an ex-ante social impact assessment of a range of potential welfare and tax measures as part of the deliberative process for the Budget. This includes some measures suggested at the Department's Pre Budget Forum with community and voluntary groups. Some groups have called for this information to be published in advance of the Budget, but this is not seen as possible given the requirements for Government confidentiality.

The Advisory Group on Tax and Social Welfare, established under the auspices of the Department of Social Protection, has used the SWITCH model to assess the social impact of its proposed reforms in child and family income support and working age supports. Finally, the Department of the Environment and Local Government, in conjunction with the Department of Social Protection, the Department of Health and the ESRI, is undertaking an integrated social and health impact assessment of the housing assistance payment, a new social housing support for the private rented sector administered by local authorities.

3. Understanding of the SWITCH model

We may break down this section into a number of questions:

- a) Are policy makers and the public aware of the results of micro-simulation and are the findings understood?
- b) What more can be done to improve understanding of the potential and the limitations with available data and methods?

It is clear that both policy makers and the public are now well aware of the results of micro-simulation research and there is good understanding of the findings. A good communications strategy is vital in achieving these outcomes. There is a flow of communication between policy makers and their advisors and the research team, moderated by a SWITCH Steering Group made up of senior officials from relevant departments. Some ideas prove feasible to address, others not – largely due to the fact that no one micro-data survey, such as SILC, can obtain all the information which might be relevant to policy analysis. In addition, there is a well-attended annual pre-Budget policy conference where the results of micro-simulation analyses are presented by the SWITCH team and other experts.

There is also a regular flow of research analyses and reports which are well covered in the media. This is achieved by dissemination of the results through conferences and other presentations, publication on the ESRI's free-to-access website and through print and broadcast media. Research based on the model is frequently



covered in newspaper articles and on mainstream news programmes on TV and radio. Results are also cited in parliamentary debates.

More recently, the SWITCH team has met with representatives of Community and Voluntary Groups, to discuss their concerns and ideas. Again, good communications are critical to ensuring that ideas which can be addressed are considered, and that relevant stakeholders are kept informed as to why certain other issues cannot be addressed.

In addition, the Department of Social Protection is working with other departments and the designers of the SWITCH model to develop a whole-of-government approach to social impact assessment. While the departments with primary responsibility for the Budget, the Department of Finance and the Department of Public Expenditure, have access to *SWITCH*, it is not explicitly used by them for the purpose of social impact assessment.

One recent high-profile example of the use of SWITCH is by the interdepartmental working group on the affordability of water charges (Department of the Environment, Community and Local Government, 2014). Another is to inform the implementation of the housing assistance payment, a new form of rent support for welfare recipients with a long-term housing need, involving a number of government departments and the local authorities. The analysis of entitlements to healthcare services including income-based medical cards and universal health insurance has recently commenced by the Department of Health. Finally, the use of social impact assessment for measuring the impact of policy on children is envisaged by the Department of Children.

4. Nowcasting, technical improvements and extensions

There is currently no demand for nowcast or forecast estimates of at-risk-of-poverty using micro-simulation. The lack of demand reflects a number of factors. To begin with, the indicator of poverty used to set the national poverty target is not at-risk-of-poverty per se, but the overlap of at-risk-of-poverty and basic deprivation, known as consistent poverty. It is not possible to forecast this indicator using SWITCH. Second, given the ongoing economic difficulties facing Ireland, forecasts about poverty and income inequality would be a limited exercise pending a clearer picture of future economic growth, employment and fiscal resources.

Technical improvements are being considered in relation to the following:

- a) Carbon taxes and indirect taxes. Savage and Callan (2014) explore the potential to use complementary datasets for integrated modelling of direct and indirect tax policies;
- b) Capital gains taxes;
- c) Entitlements to healthcare services;
- d) Housing related supports.

SWITCH tabulations use a number of classifying variables to examine policy impact (mainly income levels and family types). The connection to policy concerns could be improved by extending the potential list of classifying variables to include age and gender, persons with disability, jobless households and lone parents. Keane, Callan and Walsh (2014) provide an example of a new method of gendered analysis of budgetary impacts, in the context of recession and austerity policies.



5. Organisation, access and use of the SWITCH model

The SWITCH model has operated over much of the past decade as a joint venture between the ESRI and stakeholder ministries. The shared goal is to provide evidence which can inform policy development and public debate. The mechanism is that ESRI is responsible for model development and maintenance, and for informing public debate through a range of publications and presentations. Given budget secrecy rules, informing policy development requires that stakeholder ministries have access to the model, along with training and support.

This framework has worked well in building analytic capacity, and, crucially, in getting that capacity used within government and in an independent research institute.

Relative to the most common situation, in which a ministry has an in-house model, the major drawback is that – because of budget secrecy – some policy developments cannot be incorporated in the model until after policy is announced. However, if resources were diverted into an in-house ministry model, the major drawback would be that independent scrutiny of options and outcomes would no longer be available. Given the level of resources available the current situation provides a good compromise.

Open access has many desirable features, but requires a strong and secure funding mechanism to make it feasible. For a model to be “free at the point of use” the fixed costs of model development and maintenance, which are substantial, must be covered.

The information in Appendix 2 of the discussion paper (Holly Sutherland) about the use of SWITCH is correct, but incomplete. In stating that the model is available to “other ministries” it omits the extensive use of the model by its originators, the ESRI (an independent research institute), which has published more than 130 papers to date. Perhaps the heading in the table should be changed from ‘to whom is it made available’ to ‘by whom is the msm used’. Thus, a plus sign should be added under the consultants’ heading.

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