ANALYSING THE DISTRIBUTIONAL IMPACT OF INDIRECT TAXES

A NEW APPROACH FOR IRELAND

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EVIDENCE FOR POLICY

ANALYSING THE DISTRIBUTIONAL IMPACT OF INDIRECT TAXES: A NEW APPROACH FOR IRELAND[1]

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ANALYSIS OF TAX AND WELFARE POLICY IN IRELAND

When considering changes to tax policy, it is important to know who is likely to be affected and to what extent. Simulating the effects of changes in direct taxation (e.g. income tax) requires reliable data on incomes, while simulating the effects of changes in indirect taxation (e.g. VAT) requires reliable data on expenditure. Because no single Irish data set contains detailed information on both household incomes and expenditures, simulating the overall impact of both direct and indirect taxes for different income and social groups can be difficult. The present paper applied a method for estimating household expenditure and matching it to household income data. It is hoped that the method will improve our ability to simulate the impacts of proposed or actual changes in taxes in Ireland.

From a research point of view, a single dataset combining detailed data on incomes, expenditures, labour market participation, and a range of socio-demographic information would be ideal. There are, however, limits on the amount of data that can be gathered by any one survey. Consequently, most countries do not have a single source of micro-data including high-quality information on both the incomes and expenditures of households, which would allow joint analysis of direct and indirect taxation.

SWITCH, the ESRI tax-benefit microsimulation model, has become a key tool for analysing direct tax and welfare policies in Ireland. The model enables policy-makers and researchers to examine the distributional impact of actual and potential policy reforms, as well as identifying their impact on individuals'

financial incentive to work. The SWITCH database is based on the Survey of Income and Living Conditions (SILC), which contains detailed income information, as well as an extensive range of demographic information, for each individual in several thousand households.[2] In common with the majority of other surveys throughout Europe, however, the survey does not contain any information on household expenditure.

IMPUTING EXPENDITURE INFORMATION TO THE SWITCH DATABASE

This research tests a method of imputing expenditure information (from the 2010 Household Budget Survey) into a detailed income survey (SILC 2010), so that the indirect tax system can be modelled simultaneously with the direct tax and welfare system. The result is a single dataset with detailed income information, along with imputed expenditure information. Applying microsimulation techniques to this expanded dataset then allows for simultaneous analysis of the direct tax and welfare systems along with the indirect tax system.

Extensive testing of results shows that the new approach produces a good fit with actual expenditure data. Validation relies on comparison of the distribution of expenditure and indirect taxes when actual or imputed expenditure data is used. With either data source, the results confirm the regressive nature of the indirect tax system in Ireland on a snapshot basis – those on lower incomes pay a higher proportion of their income in indirect taxes.

Analysis of hypothetical joint reforms of the direct tax, indirect tax and social welfare systems illustrates the value of the research. For example, it is possible to simulate how an affected group can be compensated for income losses due to changes in indirect taxes via reforms to social welfare schemes, such as a revenue neutral increase to VAT on children's clothing combined with an increase in child benefit. This illustrates the increased capacity for policy analysis due to the methods applied in the paper.

RESEARCH CONFIRMS POTENTIAL FOR SIGNIFICANT DEVELOPMENT OF POLICY ANALYSIS IN IRELAND

Accurate appraisal of public policy should include as much of the relevant information as possible. In measuring the distributional impact of the tax and welfare system, it is therefore important to include not only the impact of the direct tax and welfare system, but also the impact of the indirect tax system. The methods and results in this paper are encouraging in that regard. By showing that the approach produces results with Ireland's standard source of income data that are highly comparable to results produced with Ireland's standard source of expenditure data, the analysis aims to improve our ability to understand and to simulate the tax and benefit system in Ireland.

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[2] At the time of analysis, SWITCH was based on the 2010 wave of SILC, which contained 4,642 households. Since then, the database has been updated to be based on a pooled sample of the 2013 and 2014 waves of SILC, which contains 7,972 households.

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