EUROMOD: a multi-country tax-benefit model

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Modelling framework

- Own tax-benefit modelling "language" (i.e. functions) written in C++: compiled and documented
- A total of 17 functions provide building blocks for taxbenefit systems and model operations
- The user can change any parameters that drive the functions and may create new policies using these functions
- Excel provides the front end for users and developers (navigation, editor and tools)
- Input data are transformed to a common structure while retaining necessary national specificity: variable naming rules ensure cross-national equivalence

Examples of EUROMOD functions

- Determine eligibility for benefit receipt, liability for paying taxes or evaluate other conditions (func_Elig)
- Apply advanced tax schedules (func SchedCalc)
- Calculate formulas involving standard arithmetical operations (func ArithOp)
- · Calculate conditional formulas, e.g. a benefit with multiple components (func BenCalc)
- Define assessment units (func DefTU)
- Define advanced income concepts, e.g. taxbase, means test (func DefIL)
- Determine the division of incomes within the assessment unit (func Allocate)

The EUROMOD functions manual is a key document for users and developers

What is EUROMOD?

- Tax-benefit model for the countries of the European Union
- Highly structured, flexible and transparent
- Relies on national experts in each country
- 20+ input data sources

Navigation

buttons

- Wide (European) network of users
- More than 12 years of development
- Free for academic and non-commercial use

policy simulations (Estonian 2005 system)

Example of 'policy spine', defining the order of

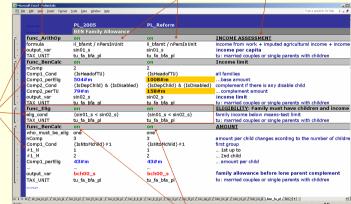
Policy systems

Key aspects

- ✓ All country specific (data or policy) features are parameterised and accessible to the user
- Generic functions and variable definitions ("building blocks") are designed to work across countries

Policy example (Polish family allowance in 2005)

Parameter values Comments List of parameters for each system



On/off switches for functions

- · Cross-national comparisons involving
 - equivalent outputs with different inputs
 - wide range of user-controlled options
 - variables that improve cross-national comparability e.g. net social benefits, child contingent payments
- The differential effect of "common" reforms
- Policy learning across countries: "policy swapping"
- EU-level analysis
- · General framework can be used to shortcut the process of building comparable models for any country (e.g. SAMOD for South Africa)

What is it used for?

Find out more

Functions

- Working Papers using EUROMOD
- Info about access to EUROMOD
- EUROMOD documentation
- ...and more.

http://www.iser.essex.ac.uk/research/euromod

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List of Output variables policies for each policy

On/off switches for policies

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