

FiFoSiM - Integrated tax benefit microsimulation and CGE model for Germany

Andreas Peichl and Thilo Schaefer

CPE, University of Cologne

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- FiFoSiM = integrated tax benefit microsimulation and CGE model of the Center for Public Economics (CPE) at the University of Cologne (= “Finanzwissenschaftliches Forschungsinstitut” (FiFo) an der Universität zu Köln .
- References: Peichl, A. and Schaefer, T. (2006).
Documentation FiFoSiM: Integrated Tax Benefit Microsimulation and CGE Model, CPE Discussion Paper No. 06 -10, University of Cologne, www.cpe-cologne.de.

- Development started in September 2004. First running version of the whole system in October 2005, continuous improvements
- Programmed in Stata and GAMS/MPSGE
- Years: 2003-2007 + 1 year forecast
- new version each year (upon data availability)

Basic Setup FiFoSiM

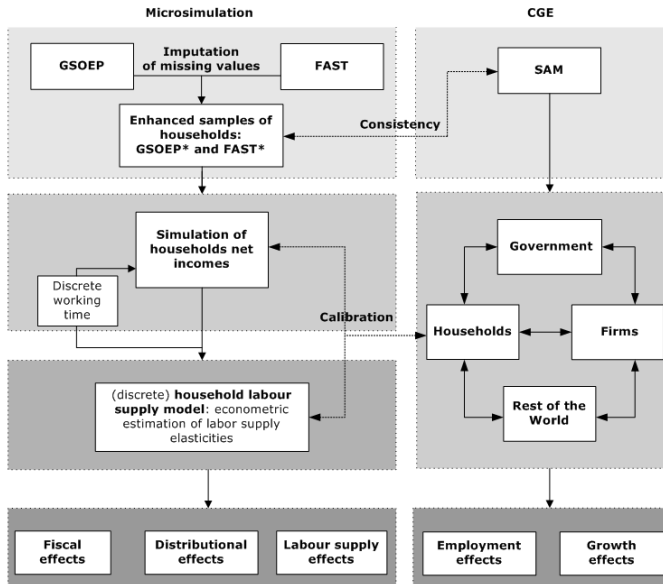
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- FiFoSiM creates a dual database using two micro data sets for Germany:
 - FAST98 is a micro datafile from the German federal income tax statistics containing the relevant income tax data of nearly 3 million households in Germany.
 - GSOEP is a representative panel study of private households in Germany.
- The simultaneous use of both databases allows for the imputation of missing values or variables in the other dataset using techniques of statistical matching.
- Updating: each year with new datasets and/or re-weighting

- Structural discrete choice household labour supply model (Van Soest (1995))
- Translog or quadratic household utility function
- Concept of random utility maximisation
 - ⇒ Conditional logit model (McFadden (1973))
- ⇒ econometric estimation of labour supply elasticities

- Based on utility function from labour supply module
⇒ estimation of distortions of labour-leisure decision
(see Creedy and Kalb (2006))
- Changes in the equivalent variation as a money metric welfare measure
- Change in welfare (negative excess burden):
$$\Delta W_i = - (EV_i - \Delta T_i)$$

- Academic research and policy consulting:
 - Analysis of actual tax reform proposals
 - Tax simplification and Flat taxes
 - Family taxation
 - Earned income tax credit and basic income
- See Peichl/Schaefer (2006) and www.cpe-cologne.de for full references

- Two specific features:
 - dual database
 - linkage of tax benefit model with CGE model
- Several ideas for the further improvement exist:
 - modelling of indirect taxes
 - improvement of CGE module and micro macro linkage
 - dynamic modules?

Thank you for your attention!

a.peichl@uni-koeln.de
www.cpe-cologne.de