# FLAT TAX REFORM AND HOUSEHOLDS' DISPOSABLE INCOME IN ITALY: A DYNAMIC SAM-BASED CGE MODEL

Topic: IO modeling: Econometric, CGE and SAM modelling
Author: Silvia DAndrea
Co-Authors: Claudio SOCCI, Francesca SEVERINI, Rosita PRETAROLI, Stefano Deriu

The Italian Government is working over a fiscal policy reform to tackle the inequality and allow an increase in household disposable income to stimulate the level of final consumption and production. The reform proposed by the Italian Government concerns the replacement of the current progressive tax system with a flat one, introducing a flattened households' income tax based on two tax rates.

The analysis proposed, respond to the exigency of providing an ex-ante quantification of how such a policy affects the economic system both in aggregate and disaggregate terms. In particular, the study develops a dynamic Computable General Equilibrium model based on the Italian Social Accounting Matrix where the all the flows related to the Households are broken down by income deciles. The data from Households' income and wealth conducted by the Bank of Italy and Households' consumption made by the ISTAT are matched using the propensity score matching technique. However, to break down the flows related to primary and secondary income distribution according to income deciles, the SHIW is integrated with the taxes database of the Ministry of Economy and Finance. The dynamic CGE model is calibrated on the SAM and the policy scenarios are designed in order to simulate the change in the income tax rates to replicate the Italian Government fiscal policy proposal. The policy outcome might be twofold: on the one hand, after the implementation of the policy, the so-called "fiscal multipliers" could find greater application. In other words, through an increase in disposable income, there should be an increase in consumption and thus, an increase in overall income, triggering, over time, a process of increasing State budget. On the other hand, the new taxation system could reduce the tax burden especially for higher incomes, thus affecting inequality, unless the allowances system is modified accordingly.

References
Agell, J., Persson M. (2001) "On the analytics of the dynamic Laﬀer Curve". Journal Of Monetary Economics, 48, 397-414.
Ahmed I., Socci C., Severini F., Qaiser R., Pretaroli R. (2018) "Forecasting investment and consumption behavior of economic agents through dynamic computable general equilibrium model". Financial Innovation. 4. 10.1186/s40854-018-0091-3.
Ahmed I., Socci C., Severini F., Pretaroli R. (2018) "Fiscal policy for households and public budget constraint in Italy". Economia Politica, 1-17. 10.1007/s40888-018-0114-6.
Andrle M., S. Hebous, Kangur A., Raissi M. "Italy: Toward a Growth-Friendly Fiscal Reform" IMF Working Paper 2018, forthcoming.
Chari V. V., Kehoe P. J., 2006. "Modern Macroeconomics in Practice: How Theory Is Shaping Policy", Journal of Economic Perspectives, American Economic Association, vol. 20(4), pages 3-28, Fall.
Ciaschini M., Pretaroli R., Severini F., Socci C., (2015) "Assessing US policies for Health Care through the dynamic CGE approach", Bulletin of Political Economy, 9(2), 93-126, ISSN: 0973-5747, Serials Publications.
Ciaschini M., Pretaroli R., Severini F., Socci C. (2019) "The effects of environmental taxation through a dynamic CGE model".
Keen M., Kim Y., Varsano R. "The flat taxes: Principles and Evidence", IMF WP n.218, Sep. 2006.
Ivanova A., Keen M., Klemm A. "The Russian Flat Tax Reform", IMF WP n.16, Jan. 2005.
John L., Wright R., Duku E. K., and Willms J. D. "The Use of Propensity Scores as a Matching

Strategyâ€•, Research on Social Work Practice Vol 18, Issue 1, June 2007.

Lofgren H., Robinson S. and El-Said M. â€œPoverty and Inequality Analysis in a General Equilibrium Framework: The Representative Household Approachâ€•, World Bank, Chapter 15, Jan. 2003

Lusinyan L., Muir D. â€œAssessing the Macroeconomic Impact of Structural Reforms: The Case of Italyâ€•, IMF Working Paper no.22, Jan. 2013.

Peichl A., Paulus A. (2007) â€œEffects of Flat Tax Reforms in Western Europe on Equity and Efficiencyâ€•. Cologne Center for Public Economics, FiFo-CPE Discussion Papers.

Perali F., Scandizzo P.L. (Eds.) â€œThe New Generation of Computable General Equilibrium Models - Modeling the Economyâ€•, Springer, 2018.

Pretaroli R., Severini F. (2008) â€œDalla SAM al modello computazionale CGEâ€•, in Ministero dellâ€™Interno (Ed.).

Radulescu, D., Stimmelmayr, M. (2010) â€œThe impact of the 2008 German corporate tax reform: A dynamic CGE analysisâ€•, Economic Modelling, 27.

Trabandt M., Uhlig H. â€œHow far are we from the slippery slope? the Laffer curve revisitedâ€•, ECB WP series, no.1174/2010.

Savard L. â€œPoverty and Inequality Analysis within a CGE Framework: A Comparative Analysis of the Representative Agent and Micro-Simulation Approachesâ€•, CIRPEE Working Paper No. 04-12, May 2004.

Taylor L. (1990) â€œStructuralist CGE modelsâ€•, in Taylor L. (ed): â€œSocially relevant Policy Analysis: Structural computable general equilibrium models for developing worldâ€•. Cambridge (MA): MIT press pp. 1-70.