Abstract

Using E3ME, a macro-econometric model of Europe, we simulate Italy's RES-E surcharge, called A3, and a hypothetical carbon tax, considered as an alternative for recovering the cost of RES-E support. Over the forecast period 2011-2020 (an "ex-ante evaluation in the past"), the two respective scenarios are compared against a baseline with respect to the effects on *a)* economic activity, *b)* income distribution, *c)* unemployment, and *d)* CO_2 emissions. First and foremost, we find that RES-E support has a positive impact on economic activity (GDP, total output, unemployment) through the investment multiplier and substitution of fossil fuel imports with domestic production. However, the financing of RES-E support with carbon revenues, instead of the existing electricity surcharge, would significantly improve both cost distribution and emission abatement. While still regressive, the impact of the carbon tax on the Gini coefficient for real disposable income is half that of the A3. At the same time, the reduction in CO_2 emissions would be three times as big. The replacement of the A3 surcharge with a carbon tax is a reform that kills two pigeons with a stone and has no cost.