Towards climate neutrality: economic impacts, opportunities and risks



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Computable General Equilibrium Model as a Tool to Assess the Impact of Climate Policy in Latvia

Abstract. Ambitious climate policy targets by developed countries towards carbon neutrality created a necessity to model the impact of climate policy on macroeconomic and socioeconomic indicators. Academic literature suggests that Computable General Equilibrium (CGE) model representing the entire economy, linked with a TIMES model reflecting the energy sector in detail, proved to be an effective tool for such modelling. This research contributes to the starting point for creating such a modelling system in the University of Latvia (CGE model) and the Institute of Physical Energetics (TIMES model), focusing on the CGE model. First, it reviews the literature on the use of the CGE model and its effective link with the TIMES model to assess the economic impact of climate policy. Second, it reviews the features of the current Latvian CGE model owned by the University of Latvia, compared to its ORANI-G model prototype. Third, as a list of recommendations, it proposes a roadmap for the future development of the Latvian CGE model to be effectively linked with the TIMES model to assess the impact of climate policy on macroeconomic and socioeconomic indicators.

Keywords: Computable General Equilibrium model, climate policy modelling, soft-link.

JEL codes: C68, Q54, Q58.

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