

Optimal fiscal policy in a second-best climate economy model with heterogeneous agents

Thomas Douenne *[†] Albert Jan Hummel *[‡] Marcelo Pedroni *[§]

January 26, 2022

Disclaimer: This document is a work in progress. Please do not circulate or cite it without the consent of the authors.

Abstract

This paper studies optimal fiscal policy in a climate economy model with heterogeneous agents and distortionary taxes on labor and capital income. We derive optimal tax rules and show how they are modified relative to first-best and relative to the case without heterogeneity. We also explore quantitatively the role of heterogeneity for optimal carbon taxation in a version of the model that is calibrated to the US economy.

JEL classification: E62, H21, H23, Q5

Keywords: Climate policy; Carbon taxes; Optimal taxation; Heterogeneous agents.

*University of Amsterdam, Amsterdam School of Economics. Present address: University of Amsterdam, Roetersstraat 11, 1018 WB Amsterdam, Netherlands.

[†]email: t.r.g.r.douenne@uva.nl

[‡]email: a.j.hummel@uva.nl

[§]email: m.pedroni@uva.nl