

**Banka Slovenije**  
in cooperation with  
**the Research Centre of the School of Economics and Business**  
invites you to a seminar

***Optimal Monetary Policy in a Two-Sector Environmental DSGE Model*** ([link](#))

Co-author and speaker:  
**Oliver Holtemöller**

**Halle Institute for Economic Research; Martin Luther University Halle-Wittenberg**

The seminar will be held in the  
**Great Hall of Banka Slovenije**  
on **Tuesday, 12 November 2024 at 15:30**

**Abstract:**

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In this paper, Oliver Holtemöller and Alessandro Sardone discuss the impact on the conduct of monetary policy of including climate change and sub-optimal environmental policies in a two-sector (clean and dirty) dynamic stochastic general equilibrium model. The authors investigate the optimal monetary policy rule parameters conditional on a given environmental policy. In particular, the authors examine the optimal response of the interest rate to changes in sectoral inflation. The authors show that an asymmetric reaction of monetary policy to sector-specific price fluctuations seems to allow for a downsizing of production in the dirty sector, leading to a relative reduction in emissions without being at the expense of welfare. The authors then compare the performance of a non-standard monetary rule with sectoral inflation targets to that of a standard Taylor rule. The authors demonstrate that a policy rule allowing for different responses to sector-specific inflation is superior to a standard Taylor rule targeting aggregate inflation and is close to an optimal Ramsey policy. The results depend on the kind of environmental policy that is implemented because this shapes the nature of the corresponding price distortion. The authors also highlight that the two goals of welfare maximization and emission minimization are not necessarily aligned.

**About the author:**

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Professor Oliver Holtemöller studied Economics, Applied Mathematics, and Practical Computer Science at Justus-Liebig University in Gießen. He participated in the doctoral program in Applied Microeconomics at Freie Universität Berlin and Humboldt-Universität zu Berlin from 1998 to 2001, obtaining his doctoral degree from Freie Universität Berlin in 2001. From 2001 to 2003, Professor Holtemöller collaborated with the National Research Center for Quantification and Simulation of Economic Processes (SFB 373) at Humboldt-Universität zu Berlin. Between 2003 and 2009, he served as an Assistant Professor of Economics at RWTH Aachen University. Since August 2009, he has been a Professor of Economics at Martin-Luther-University Halle-Wittenberg and the Head of the Department of Macroeconomics at the Halle Institute for Economic Research (IWH). Additionally, since March 2014, he has been a member of the Executive Board of the IWH.

**How to sign up:**

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To sign up for the seminar, please send an email to [seminar@bsi.si](mailto:seminar@bsi.si). You can sign up by Monday, 11 November 2024. The seminar will be held in English.