

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

***Macroeconomic Effects of Carbon Transition Policies: An Assessment  
Based on the ECB's New Area-Wide Model with a Disaggregated Energy  
Sector***

Author:  
**Matija Lozej**  
Central Bank of Ireland

The seminar will be held in the  
**Great Hall of Banka Slovenije**  
on **Thursday, 11 January 2024 at 14:00 CEST**

**Abstract:**

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In this paper, Matija Lozej and co-authors use scenario analysis to assess the macroeconomic effects of carbon transition policies aimed at mitigating climate change. To this end, they employ a version of the ECB's New Area-Wide Model (NAWM) augmented with a framework of disaggregated energy production and use, which distinguishes between "dirty" and "clean" energy. Their central transition scenario is that of a permanent increase in carbon taxes, which are levied as a surcharge on the price of dirty energy. Findings suggest that increasing euro area carbon taxes to an interim target level consistent with the transition to a net-zero economy entails a transitory rise in inflation and a lasting, albeit moderate decline in GDP. Authors show that the short and medium-term effects depend on the monetary policy reaction, the path of the carbon tax increase and its credibility, while expanding clean energy supply is key for containing the decline in GDP. Undesirable distributional effects can be addressed by redistributing the fiscal revenues from the carbon tax increase across households.

**About the author:**

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Matija Lozej is an Advisor at the Central Bank of Ireland, where he is working in the Irish Economic Analysis (Macro Modelling, DSGE models). Previously, he used to work at the ECB (Forecasting and Policy Modelling) and at the Bank of Slovenia (Analysis and Research). His research interests are applied DSGE models with labour market and financial frictions, and their interaction with macroeconomic policies. He has also worked on HANK models, with a focus on the interaction of the household heterogeneity and the labour market. Another occasional area of interest is empirical, in particular identification in structural VAR models.

**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 Tuesday, 9 January 2024. The seminar will be held in English.