

Banka Slovenije
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the Research Centre of the School of Economics and Business
invites you to a seminar

Disentangling the electricity supply curve: the role of green and brown energy sources

Authors and speakers:
Domen Pavlič and Miha Breznikar

The seminar will be held in the
Cankarjeva 1, Ljubljana – 4th floor (passage between Cankarjeva and Tomšičeva)
on Thursday, 19 June 2025 at 13:30 CET

Abstract:

This paper investigates the determinants of wholesale electricity and emission allowance prices in the euro area using a time-varying VARX model with stochastic volatility. This modelling framework enables us to account for structural changes in the electricity market, particularly the increasing importance of renewable energy sources. We develop a partial equilibrium model to motivate a novel identification strategy that disentangles the electricity supply curve by energy source and incorporates the role of emission allowances. Our historical shock decomposition shows that the post-pandemic surge in wholesale electricity prices was driven mainly by demand recovery and tighter climate policy. In contrast, brown supply shocks played a limited role following the Russian aggression against Ukraine. A counterfactual scenario with a flat carbon tax suggests that this muted effect reflects the buffering role of emission allowances.

About the authors:

Domen Pavlič is an Analyst at the Banka Slovenije, where he works in the Analysis and Research department. He is a PhD candidate in the Economics programme at the School of Economics and Business, University of Ljubljana. His research interests focus on macroeconomic dynamics, with particular interest in inflation developments, structural and time series models, and the economic impact of extreme weather events on bank lending and broader economic activity.

Miha Breznikar is a Consultant Analyst at the Banka Slovenije (currently on short-term appointment at the ECB), where he works in the Analysis and Research department. He is a PhD candidate in the interdisciplinary doctoral programme in Statistics at the University of Ljubljana. His research interests focus on macroeconomic dynamics, structural and time series models, and the analysis of commodity markets, with an emphasis on understanding business cycle fluctuations and the transmission of economic shocks through quantitative modelling.

How to sign up:

To sign up for the seminar, please send an email to seminar@bsi.si. You can sign up by Tuesday, 17 June 2025. The seminar will be held in English.