Recycling carbon taxes for reindustrialisation: addressing structural rigidity and financialisation in natural resource exporting countries

Topic:
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The inclusion of developing and emerging countries in the low-carbon transition agenda is necessary to achieve climate goals, and policies must be designed according to their idiosyncrasies. Despite the relevance of these countries, their structural specificities are often overlooked in low-carbon transition models. With the aim of building a suitable framework for this analysis, this article develops a Structural Stock-Flow Consistent (Structural SFC) model for open developing economies, categorising production into three sectors: resource-based exports, non-tradable goods and services, and other tradable sectors.

Although SFC models are important for highlighting financial constraints, they are rarely multi-sectoral and fail to account for structural specificities. The contributions of our model are twofold: (1) it provides a versatile framework that captures varying country characteristics and balances short-term demand with long-term structural strategies, and (2) it demonstrates that sole reliance on carbon pricing is insufficient for economies anchored in carbon-intensive sectors.

By accounting for structurally different sectors in a truly monetary framework, the model allows us to understand how financial constraints derived from structural rigidities play a decisive role in determining the dynamics of the low-carbon transition. The model provides evidence that the effectiveness of carbon pricing depends on countries' commercial, financial and production structure. It also shows that carbon tax recycling is essential to avoid recessions and promote sustainable decarbonization by strengthening innovation and competitiveness in low-emissions industries.