

Net zero, nature and supply chain vulnerabilities: macrofinancial and environmental implications

14–15 October 2024

London School of Economics and Political Science and Lincoln's Inn, London WC2A 3TL

The Centre for Economic Transition Expertise, Sustainable Macro and Deutsche Bundesbank invite you to this jointly organised conference, taking place in person at the London School of Economics and Political Science.

Context

Rising geopolitical tensions are undermining the dependability of global supply chains, including those for renewable energy (technology) and critical minerals. Environmental shocks resulting from climate change and ecological degradation are compounding supply chain disruptions, thereby jeopardising economic output and stability. As the severity and frequency of environmental shocks intensify and place greater pressure on global supply chains, they will increasingly generate macrofinancial instabilities such as economic losses price volatility and fiscal and financial distress. Furthermore, the transition to a net zero economy itself entails major shifts in supply chains and economic activity. Emerging market and developing economies face not only the most immediate and extreme impacts of climate change and nature loss but also the most acute social and environmental trade-offs related to the net zero transition.

The rapid deployment of clean energy technologies, which require sufficient supply of transition-critical materials, is a central feature of this transition. Environmental conservation, health and other societal outcomes need to be balanced against the enormous economic potential of moving up renewable energy value chains. Social and environmental risks that can arise from the mining of transition-critical materials involve human rights violations, bribery and corruption, emissions, pollution, deforestation, and water stress. This can exacerbate community tensions and deter investments in high-risk areas. Managing the risks and seizing the opportunities presented by the net zero transition necessitates a greater understanding of both the macrofinancial dynamics and the social and environmental trade-offs at play in the scaling up of transition-related supply chains.

Call for papers

We are inviting submissions of extended abstracts and paper drafts on the macrofinancial and environmental implications of the growth of net zero transition-related supply chains, as well as the various dimensions of how nature loss and climate change disrupt global supply chains and thereby generate macrofinancial instability.

We welcome submissions on topics including but not limited to:

Economic growth, price and financial stability, and fiscal sustainability

- Macrofinancial consequences of nature loss and climate change
- Macrofinancial implications of growing demand for critical minerals
- Transition-related supply chains, economic growth, and inflation dynamics
- Transition risks, stranded assets, and financial instability
- Transition-related supply chains and fiscal and debt sustainability
- Monetary, fiscal, exchange rate and financial policies for a net zero transition and macrofinancial stability

Employment and sustainable development

- Labour market implications of nature loss and climate change
- Transition-related opportunities and risks for labour markets, especially in emerging markets and developing economies
- Transmission channels of environment and transition-related employment effects on economic and financial stability
- Social and governance risks associated with transition-related supply chains, including impacts on human rights
- Policies that maximise the value-added of transition-critical materials and minimise their social and environmental risks

Social and environmental risks and trade-offs

- Environmental impacts of transition-critical materials mining
- Human health impacts of transition-critical materials mining
- Trade-offs between sustainable development, biodiversity conservation and the expansion of transition-critical materials mining, refining and manufacturing
- The marine connection, implications and unintended consequences of policies focused on land-based economic activities
- Policies and practices that support the sustainable development of ocean-based activities with lower carbon-footprints

Emerging markets and developing economies

- Socioeconomic impacts associated with transition-critical materials mining and processing, and the identification of levers that facilitate sustainable development
- Emerging market and developing economy financing needs and the role of advanced economies in filling them
- Global mechanisms to increase the resilience of transition-related supply chains in emerging markets and developing economies
- Policies, processes and technologies to ensure greater traceability and transparency
- Implications for domestic and international inequality

Information and contact

Please email your extended abstracts (min. 1,000 words) or full paper drafts to gri.cetex@lse.ac.uk, including your full name, professional title, and academic affiliation, by **10 June 2024**. Accepted papers will be announced on 10 July 2024.

Travel support for PhD students and post-doctoral researchers will be available.

Organising Committee: Elena Almeida, David Barmes, Julia Bingle, Chiara Colesanti Senni, Simon Dikau, Joe Feyertag, Paolo Krischak, Alain Naef, Sophie Scharlin-Petee and Nicole Toftum.

Scientific Committee: [Simon Dietz](#) (London School of Economics), [Swati Dingrah](#) (London School of Economics and Bank of England), [Roger Fouquet](#) (National University of Singapore), [Matthias Kaldorf](#) (Deutsche Bundesbank), [Konstantin Makrelov](#) (South African Reserve Bank), [Maria Nikolaidi](#) (University of Greenwich), [Lisa Sachs](#) (Columbia University), [Romain Svartzman](#) (Bocconi University and University College London), [Anna Valero](#) (London School of Economics), [Frank Venmans](#) (London School of Economics), [Yao Wang](#) (Central University of Finance and Economics), and [Sophie Zhou](#) (Deutsche Bundesbank).