



LIETUVOS BANKAS
EUROSYSTEMA

Discussion of the paper „*Designing a macroprudential capital buffer for climate-related risks*“

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Exploring macroprudential policy to address financial stability risks of climate change
and nature degradation

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Paper Overview – Goal and Scope

- **Objective:**
 - To investigate macroprudential capital buffers that mitigate systemic risks and enhance the resilience of the banking sector.
- **What the authors do:**
 - Quantify potential euro area (EA) bank losses due to climate-related transition risks.
 - Propose a framework to calibrate bank-specific climate-related capital requirements.
- **Focus:**
 - Institutions: 107 significant banks in the euro area.
 - Climate Risk: Focus only on transition risks.
 - Horizon: Short-term, 3-year projection (2023-2025).

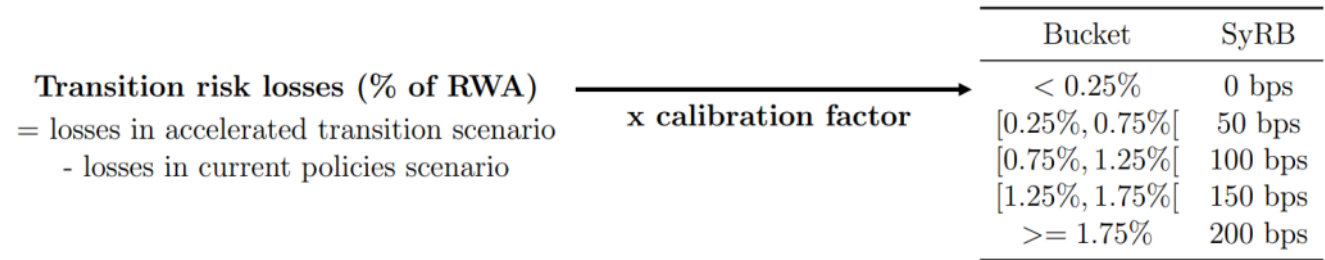
Contribution #1: Quantify Climate Transition Risks for EA Banks

- **Methodology:**
 - Builds on ECB's 2nd top-down climate stress test (Emambakhsh et al., 2023).
- **Data:**
 - Uses granular loan-level data to estimate losses on corporate/household loans and corporate debt portfolios, both inside and outside the euro area.
- **Key Findings:**
 - €52 billion EUR projected losses for EA banks over 2023-2025.
 - Losses account for ~0.60% of aggregate risk-weighted assets (RWA).
 - Large dispersion across banks in their exposure to transition risks.
- **Lower Bound:** Results exclude physical risks and second-round effects, so actual risks could be higher.



Contribution #2: : Calibration Method for a Climate-Related Capital Buffer

- **Focus:** Systemic Risk Buffer (SyRB).
- **Approach:**
 - Calibrate bank-specific SyRB requirements using a **bucketing approach**, motivated by the dispersion in transition risk exposure across banks.



- **Calibration results:**
 - 50 bps SyRB requirement for 56 banks,
 - 100 bps or more for 18 banks,
 - 33 banks are assigned no SyRB requirement.

General View on the Paper

- **Topical and Timely:**
 - Addresses an important issue as **climate change** and its **financial risks** become a growing concern for prudential authorities.
- **Calibration Method:**
 - The **proposed buffer calibration** approach is clear and straightforward, supporting **practical application**.
- **Well-Structured and Critical:**
 - The paper provides a thorough policy discussion, critically reflect on **limitations** and suggest potential **improvements** and **extensions**.
- **Robustness:**
 - The authors conduct various robustness checks, including **adverse macroeconomic shocks**, extended time horizons, and the inclusion of **less significant institutions**.

Practical Implementation – Are We There Yet?

- **Research vs. Application:**

- While the paper presents a robust risk assessment using detailed data, is it reliable enough to base the capital requirements? The complexity of climate-related risks may make practical implementation challenging.
- Is the analysis ready for **real-world application**, or does it remain primarily **research-focused**, requiring further refinement?

- **Additional Challenges:**

- **Data Availability:** Is granular emission data accessible for all companies? Sector-based differentiation of "brown" companies may not suffice—company-level emissions data is critical for accurate assessment.
- **Secondary Effects:** Transition risks can affect not only high-emission sectors but also "green" companies and banks, complicating the risk analysis.

Scenarios and Physical Risks – A Missing Piece?

- **What is "Severe but Plausible"?**
 - Scenarios play a critical role in calibrating climate-related capital requirements, as they directly influence the projected risk severity.
 - Given the uncertainties, how can we ensure that the chosen scenarios are both realistic and sufficiently severe for effective calibration?
- **Physical Risks**
 - While the paper focuses on transition risks, physical climate risks also have significant consequences for banks, particularly over the long term.
 - **Short-Term Relevance?** Is there a need for additional capital buffers regarding the physical risks in the short term (3 years)? Acute risks are hard to predict, while chronic risks unfold slowly over time.



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Thank you!
