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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.

Transition risk losses (% of RWA)
= losses in accelerated transition scenario
- losses in current policies scenario

x calibration factor

Bucket	SyRB
$< 0.25\%$	0 bps
$[0.25\%, 0.75\%[$	50 bps
$[0.75\%, 1.25\%[$	100 bps
$[1.25\%, 1.75\%[$	150 bps
$>= 1.75\%$	200 bps

- **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!