Discussion of Chen, Chen, Cong, Gao, and Ponticelli (2024)

"Pricing the Priceless: The Financing Cost of Biodiversity Conservation"

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CAFM 2024

Background: Financing the Green Transition

Climate Finance:

- How does climate change affect economic activity and asset values, and what role can financial markets play in the transition to a greener equilibrium?

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We need more research!

In total 190 financial institutions representing 29 countries and over 23 trillion euro in assets signed the Finance for Biodiversity Pledge in 2023. The Pledge was initiated by a group of 26 financial institutions calling on global leaders and committing to protect and restore biodiversity through their finance activities and investments and launched during the Nature for Life Hub at 25 September 2020 and the Biodiversity Summit of the United Nations General Assembly at 30 September 2020.

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Plan for Discussion

1. Unique aspects of financing biodiversity projects
2. Characterizing the MCB market equilibrium
3. Comments on the baseline empirical design

Point 1. Unique aspects of financing biodiversity projects

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Why is this an important consideration?

- Traditional debt financing may be poorly suited since costs are immediate but benefits are long-term and diffusion
- Unique agency problems (local governments bear concentrated costs while benefits accrue globally)
- Standard market-based solutions potentially more difficult

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- **Takeaway**: Would benefit more from a discussion of how financing impacts reflect these special characteristics of biodiversity projects!

Point 2. Characterizing the MCB market equilibrium

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- **Suggestion 2b**: Some summary statistics on the importance of MCB for the average municipality in the sample
  - Helps quantify economic significance and reveal if certain types of municipalities are more dependent on MCB financing

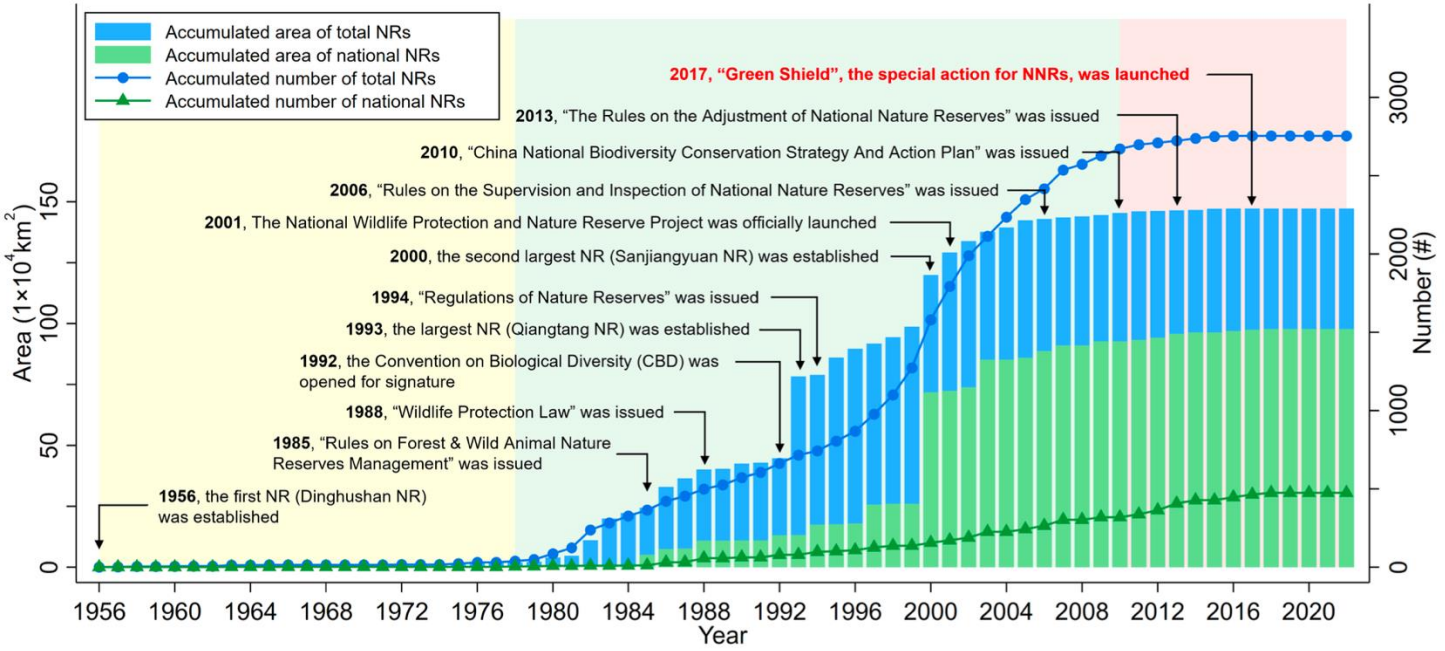
- **Suggestion 2c**. Look into whether (1) municipalities are shifting toward shorter maturities or alternative financing sources, (2) whether bond characteristics change in new issuances post-GSA

Point 3. Comments on Baseline Empirical Design

Difference-in-Difference: Design

1. NNR Designation Process

- Local government needs to apply and seek explicit approval for NNR designation.
- Central funding is limited, and the local government is aware.
- The continued to rise in (application &) designations suggests non-pecuniary incentives at play, which may vary across local governments.



Suggestion 3a

Use municipalities that qualified for NNR status but weren't designated as control group

Difference-in-Difference: Design

2. Continuous Treatment Intensity

- Current paper compares “NNR municipalities” to “non-NNR municipalities”

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- Continuous treatment would better match the economic mechanism where yield spreads reflect expected conservation spending
- Not all NNR municipalities face the same costs!

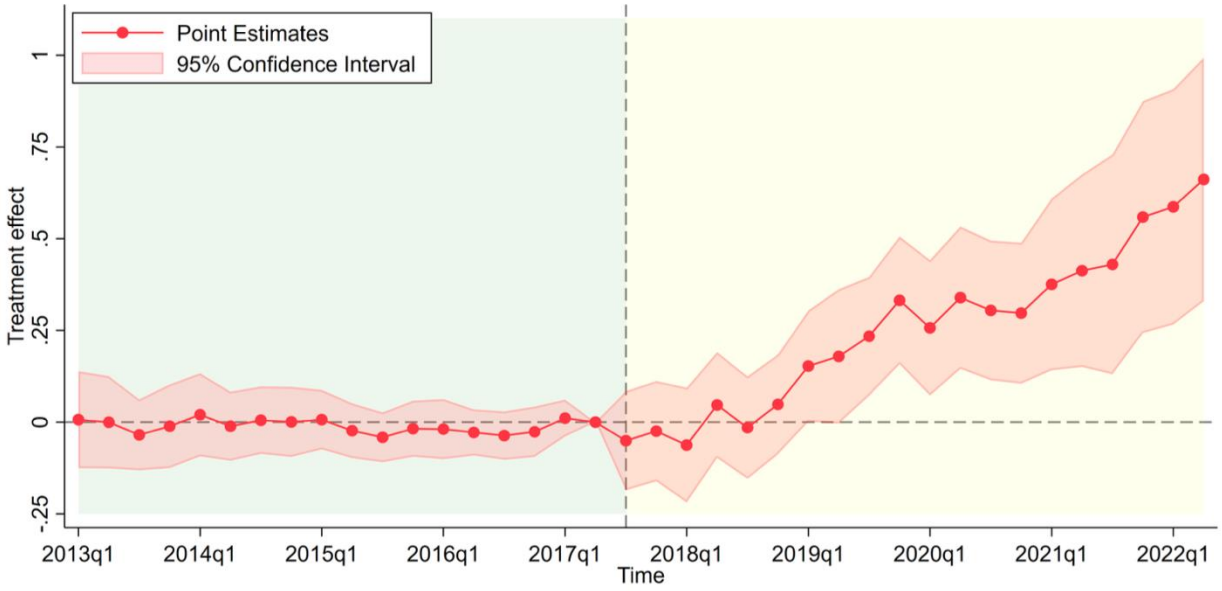
Suggestion 3b

Use continuous measure to capture the intensive margin of treatment:

- NNR area as % of municipal area or municipal GDP
- $ of economic activity within NNR that needs relocation

Difference-in-Difference: Results

3. Delayed response to announcement



Authors attribute the delay in response to:

- Information revelation through inspections (late 2017 through early 2018)
- Market uncertainty about central government commitment

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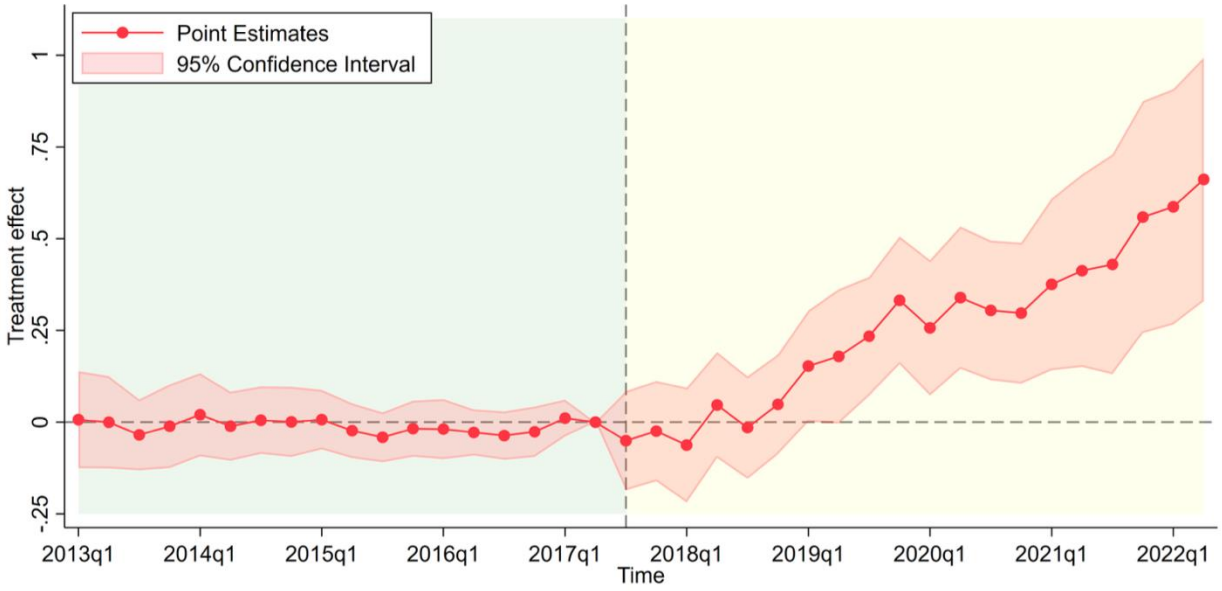

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Q. Uncertainty about what? Is it possible that the GSA signals broader shifts in central government priorities that affected cities differently, which investors learn about?

- If GSA indicated stricter environmental enforcement overall, NNR cities may face higher costs across multiple domains beyond just biodiversity.

Final Thoughts

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- **There's a lot to like about this paper!**
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  - Cool data (that I did not have a chance to cover in this discussion)
    - Satellite data, procurement contracts, bird-watching data
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- **Some questions prompted by the paper for the future:**
  - Optimal design of environmental policy (e.g. NNR designation) that internalizes the financing costs by the municipalities
  - Trade-off with respect to green bonds and targeted financing mechanisms