

Navigating the Green Dilemma: Central Banks' Quest for Climate Resilience and Market Neutrality

Central Banks and the Common Good - International Conference

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- **Research in Climate-Related Financial Policies and Green Central Banking:**
 - Essential for understanding and tackling climate risks, mitigating financial losses, leveraging emerging opportunities, and maintaining global financial stability amid environmental challenges (D'Orazio and Popoyan, 2019; D'Orazio, 2021).
 - Green central banking can also play a role in directing capital towards sustainable investments, influencing investment patterns, and promoting environmentally responsible practices for a green economy (Campiglio et al., 2018; Schoenmaker, 2021; Boneva et al., 2022).

● The Evolving Landscape of Central Banking

- **Early 20th Century Shifts:** Transition from the gold standard to fiat money systems, marking significant changes in monetary policy (Schwartz, 1987; Bordo and Kydland, 1995).
- **Central Bank Independence in the 1950s:** Emergence of central bank independence, focusing on long-term price stability and insulating policy decisions from political pressures (Cukierman et al., 1992; Berger et al., 2001).
- **Inflation Targeting in the 1990s:** Adoption of specific inflation ranges to stabilize prices and manage expectations (Mishkin and Posen, 1998; Walsh, 2009).
- **Post-2008 Global Financial Crisis:** Emphasis on financial stability, adoption of macroprudential policies, and unconventional monetary tools like quantitative easing (Borio, 2011, 2014; Del Negro et al., 2012; McKay et al., 2016).
- **Recent Trends - Green Central Banking:** Integrating climate change risks into policy frameworks, recognizing the economic impacts of climate-related events (Batten et al., 2016; Campiglio et al., 2018; D'Orazio and Popoyan, 2022; D'Orazio and Thole, 2022): **does this trend represent a paradigmatic shift in central banking?**

- **Research question:** Considering the shift in central banks' policies towards incorporating climate change considerations since the early 2000s, can we delineate a paradigmatic shift in central banking?

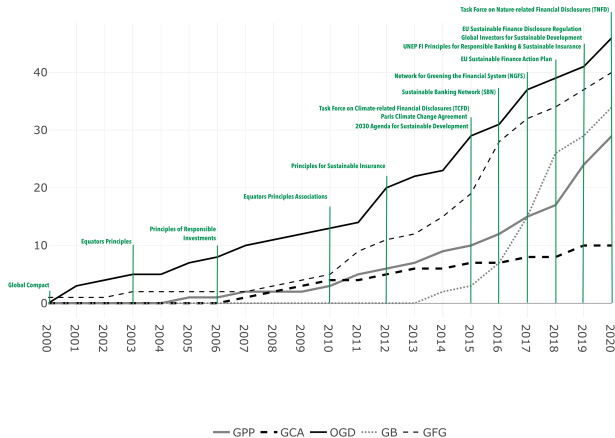


Figure: Cumulated adoption of climate-related financial policies. Source: D'Orazio (2023)

- **Research Objectives:**

- To investigate the **transformation in the global financial system** driven by acknowledging climate-related risks;
- To examine the **empirical evidence of a paradigm shift** towards green central banking, considering integrating climate goals with traditional objectives and adopting new policy tools over the past 20 years.
- To understand **how and why certain methodologies, beliefs, or practices have evolved**, providing a deeper insight into the field's development

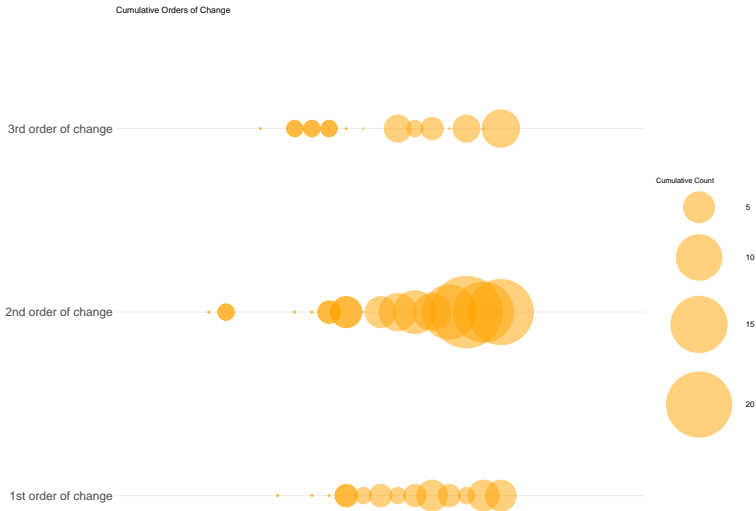
- **Contribution to Existing Literature:**

- **Significance of paradigmatic shifts** towards green central banking, underscoring its role in an era of climatic challenges.
- **Financial and monetary policy evolution** against environmental challenges.

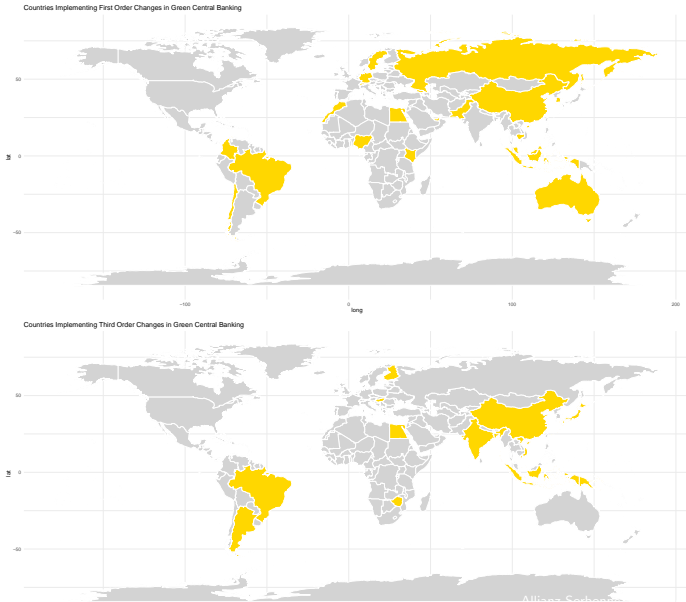
Research Methodology

- ① **STEP 1: Policy Analysis (2000-2022):** Examination of financial policies related to climate change implemented by central banks, financial supervisors, and regulators. Data sourced from [D'Orazio \(2023\)](#) for 2000-2020, with recent policies post-2020 added to the database.
- ② **STEP 2: Application of Peter Hall's Theory:** Categorizing identified policies according to Hall's framework to understand policy evolution. This results in a dataset with detailed country-level policy adoption data, labeling each policy by its *order of change*.
- ③ **STEP 3: Analysis:**
 - ① Investigate the policy changes over time, emphasizing differences between advanced economies and EMDEs.
 - ② Estimation of panel probit models with the three orders of change as dependent variables. Focus on central bank mandate and governance types as primary independent variables, along with additional controls related to climate change and economic conditions, to understand the impact of institutional features on the orders of change.

Temporal evolution of orders of change



Focus: global diffusion of first and third orders of change



Orders of Change by Income Classification

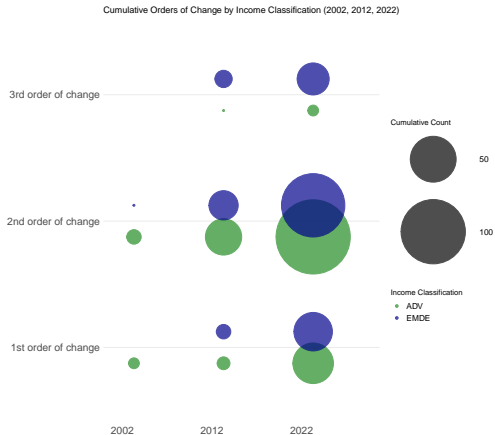


Figure: Total number of policies by order of change and income classification. The total count of policies is categorized based on their order of change, with countries grouped according to the World Bank's income classification system.

- **Temporal and Content Dimensions:** Our study reveals that policy development within central banking exhibits distinct temporal and content-based changes. This evolution is consistent with Hall's theory.
- **Shift from Second- to Third-Order Change (paradigmatic shift):** Over the past two decades, a temporal shift from second- to third-order change has been observed, driven by the ideational shift towards green central banking. *However, it is still a contested and evolving concept.*
- **Gradual Transformation in Regulatory Practices:** Despite the radicalism of thought, transformative regulatory practices in green central banking will likely evolve gradually, involving cautious steps towards an active regulatory framework.
- **Challenges of Green Central Banking:** legitimacy concerns, mission creep, inflationary pressures, reputational impact, distributional effects, credibility issues.

Thank You for Your Attention!

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