



WHY DO CENTRAL BANKS 'GO GREEN'?

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MOTIVATION

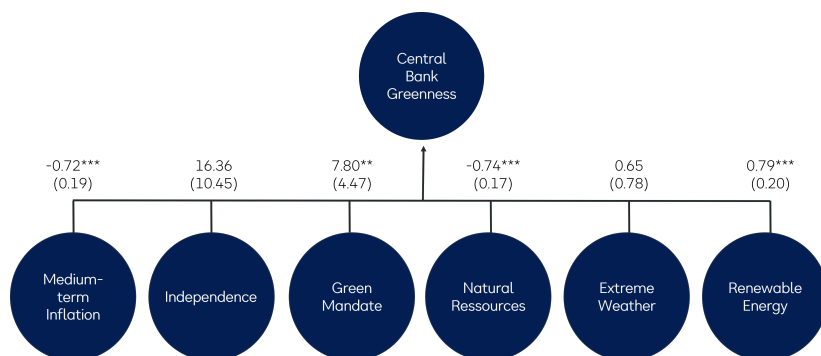
- Physical and transition risks can impede the effective fulfilment of central banks' mandate of maintaining price stability and also securing stability of the financial system.¹⁻⁶
- 19 out of G20 central banks take climate change into consideration.⁷
- Some of them are taking considerable actions.
- However, it is still unclear when and to which extent green monetary policy is useful.⁸⁻¹⁰
- Primary objective and secondary objective may collide, causing a trade-off between price stability in the medium-term and implementing long-term green monetary policy.

GREEN CENTRAL BANKING

- Passive: Pursuing main goals of price and financial stability could also require considering climate risk and other sustainability-related factors for the design of monetary policy and financial regulation.
- Active: Actively use tools to stir market behavior into desired direction, e.g., encouraging green investments, discouraging brown investments.¹¹

RESULTS

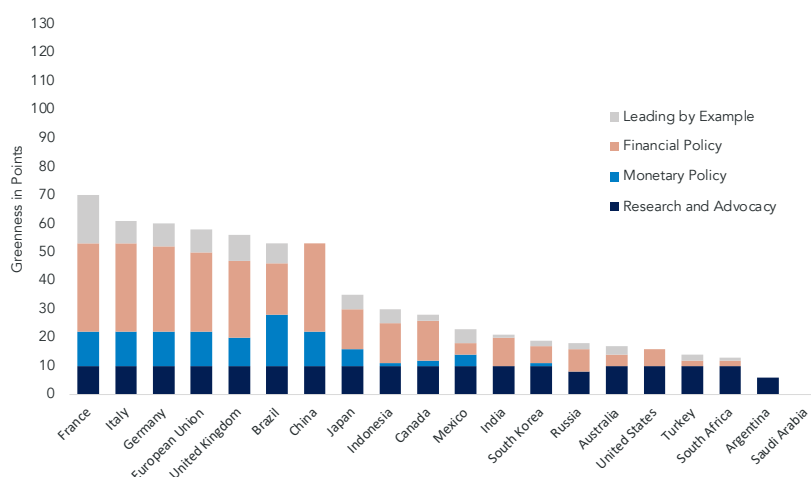
- Low long-term inflation rate seems to be a necessary condition to implement monetary policy.
- Financial market participants should carefully observe whether a central bank is about to go green as this might be associated with higher economic costs and inflation rate.
- Climate change might increase the awareness of central banks to go green particularly in those countries who are not yet fully accommodating towards a green policy.



CONTRIBUTION

- Identifying and quantifying trade-off between greenness of monetary policy and the objective of price stability.
- Estimate how costly the implementation of green central bank policy is.

DATA & METHODS



MULTI-VARIATE REGRESSION MODEL:

$$\text{Greenness} = \alpha + \beta_1 \text{inflation} + \beta_2 \text{independence} + \beta_3 \text{green mandate} + \beta_4 \text{natural resources} + \beta_5 \text{extreme weather} + \beta_6 \text{renewable energy} + \epsilon$$

IMPLICATIONS

- Price stability is a prerequisite for central banks to go green reflecting the green-inflation trade-off. If the inflation rate increases, more capacities of a central bank's operations are directed towards their core mandate of maintaining price stability and sustainability topics.
- To be able to implement a green policy, the central bank must operate within its legal framework. Having a sustainability mandate facilitates going green.³
- In countries that are dependent on natural resources with a higher share of their GDP, central banks are less inclined to undertake a green transformation.
- In countries that rely more on renewable energy, central banks are also more likely to adopt green policies.

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