



EUROPEAN CENTRAL BANK

EUROSYSTEM

“Monetary Policy for the Energy Transition”

by L. Fornaro, V. Guerrieri and L. Reichlin

Discussion @

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A thought-provoking paper

Monetary policy trade-offs in the green transition.

- Welcome line of research
- Stark results, useful contribution to the public debate

In my discussion:

1. My summary of the paper
2. Comments on key trade-offs
 - Related ECB policy.

My summary of the paper

Macroeconomic model with dirty and clean production inputs

Green transition reduces dirty-input availability → upward pressure on inflation through:

- Increase in dirty-input prices
- Reduced productivity in combination with wage stickiness

Main implications for monetary policy:

1. Medium-run: Output-inflation trade-off
 - Inflation can support employment by eroding real wages
2. Longer-run: Endogenous green innovation
 - Low interest rates can encourage investment in clean technology

Output-inflation trade-off (I)

Paper assigns management of the green transition entirely to the ECB!

- No fiscal policy (e.g., carbon tax) & no structural reforms
- “Disorderly transition”?
 - Timely and orderly transition is important to “unburden” monetary policy

Climate stress tests demonstrate benefits of a timely green transition

ECB exercises show that the short-term transition costs are outweighed by long-term benefits (reduced physical risk impact)

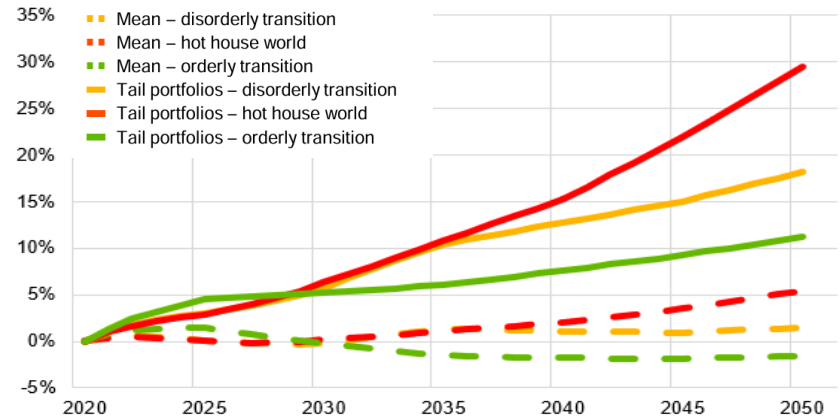
Result 1: short-term costs of transition always more than compensated by long-term benefits*

Result 2: transition more costly for carbon-intensive firms, but physical risks non-linearly increasing

Result 3: impact on most vulnerable banks potentially very severe (mostly driven by physical risk)

Evolution of banks' credit portfolio probabilities of default between 2020 and 2050

(percentage increase w.r.t. starting point - 2020)



Source: ECB calculation based on ECB, AnaCredit, Orbis, Urgentem, Moody's 427 data.

*Global economies are assumed to follow similar transition pathways as the EU for this assessment; most long-term benefits can only be achieved if other countries (outside EU) also make the green transition.

Output-inflation trade-off (II)

If there is a trade-off how should it be managed?

- According to the Treaty on the Functioning of the EU, the ECB:
 - Has as its primary objective to maintain price stability
 - Without prejudice to price stability, the ECB shall contribute to the general economic policies in the EU
- Others conclude “overwhelmingly in favor of price stability [because of] the untargeted [...] nature of conventional MP” (Nakov and Thomas, 2024).
- Are costs of inflation sufficiently taken into account?
 - Threats to central-bank credibility (Gáti, 2023).
 - Distributional consequences (Pallotti et al, 2023).

Endogenous green innovation

Do low rates support investment more in clean than in dirty tech?

- Authors find easier financial conditions has differential impact.
- But financial conditions \neq only determined by monetary policy.
 - E.g., financial frictions matter for firm decarbonization (Carradori et al, 2023).

Scope for better calibrated monetary policy instruments

- Doctrine developed in 2020/21 strategy review:

*(...) when adjusting its monetary policy instruments, the Governing Council will – provided that two configurations of the instrument set are equally conducive and not prejudicial to price stability – choose the configuration that best supports the general economic policies of the Union (...) **that helps to mitigate the impact of climate change**, with a view to contributing to the objectives of the Union.*

Examples of climate considerations in monetary policy implementation

Corporate bond holdings

Tilting of (re)investments towards issuers with better climate performance

Collateral framework

CSRD-based disclosure requirements for issuers/debtors

Climate change risks in haircut reviews



Risk assessment

Engagement with credit rating agencies towards enhanced transparency

Common standards for Eurosystem in-house credit assessment systems

In the future: structural portfolios

Review of operational framework: design will aim to incorporate climate considerations into the structural monetary policy operations

Concluding remarks

Many elements of relevance that I haven't been able to discuss today

- Nature-related considerations
- Consequences of 2.9 degrees baseline scenario
- Adaptation needs
- Financial sector and climate- & nature-related financial risks
- Etc...

Paper by Reichlin and co-authors provides a promising framework for future research and policy assessment

Keep up the good work!