Guardians of the regime

Central banks and the dual role of finance in sociotechnical transitions

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Climate change and the low-carbon transition

The low-carbon transition requires two dynamics:

- Phase-out of high-carbon technologies
  - Fossil and fossil-based (stranding?)
- Phase-in of low-carbon technologies
  - Renewable energies, clean transportation, etc.

Unlike past transitions, this needs to happen in a time-constrained, global/trans-sectoral and policy-pulled manner.

Finance and the low-carbon transition

Finance is key both as an initiator and a receiver of these dynamics.

$\rightarrow$ We need a comprehensive view of the complex interaction and co-evolution between financial regime and energy regime

QR: How is CC integrated by financial policymakers? What does it imply for the energy transition?

Theoretical framework

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We draw from the socio-technical transitions (STT) literature, and especially the 'multi-level perspective' (MLP)

- **Socio-technical regimes** evolve through the pressures from
  - **Niche-innovations** (e.g. solar panels)
  - **Landscape developments** (e.g. climate change)

Finance as a socio-technical regime

First, MLP can be used to understand finance as a socio-technical regime like any other.

A meso-economic focus on the financial regime itself: how niche innovations succeed (or fail) in transforming the financial regime

- Falcone et al. (2018) on 'green finance'
- Urban et Wojcik (2019) on 'sustainable banking'

Finance as a selection function

But finance also has a specific, unique nature

- 'Headquarter of the capitalist economy' (Schumpeter, 1942)
- 'Selection function'. (Dosi, 1990)
- 'No substitute to finance' (Geddes & Schmidt, 2020)

→ Important role for other STTs success (or failure)

- (Lack of) finance can be a barrier for phase-in
- Financial (over)valuation can be an obstacle for phase-out

Intrinsic and extrinsic objectives

Intrinsic objectives to preserve financial regime stability

- Monetary stability
- Financial stability
- Profitability

Extrinsic objectives can also be pursued

- Socially desirable demands from other regimes
- For the energy regime transition:
  - Phase-in : increase funding for low-carbon energy
  - Phase-out : facilitate the devaluation of carbon-based energy

But intrinsic and extrinsic objectives are not necessarily aligned

Regime guardians and regulatory paradigms

"Guardians' of the financial regime

- Central banks, financial supervisors and regulators, governments, etc.
- In charge of the stability of the regime (intrinsic objectives)
- External pressure recievers (extrinsic objectives)

Policy paradigms

- Ideational framework, becomes institutionalized (Hall, 1993)
- Allows decisions to be made under radical uncertainty (Blyth, 2002; Chenet et al. 2021)

Some preliminary results

"Win/win" narratives

The guardians of the regime seek to present the different objectives as compatible, with win/win narratives.

Problem 1 : *phase-out* is too slow

- Win/win 1... But by factoring climate-related risks, finance fosters the transition
- Translated in the coordinates of financial stability

Problem 2 : *phase-in* is too slow

- Win/win 2... But financing green can be a financial opportunity
- Translated in the coordinates of profitability

Incremental rather than radical transformation

Financial policymakers have adapted their tools rather than undergo a paradigmatic shift - "Transformation pathway" (Geels & Schot, 2007)

Financial stability

- Disclosure of CRRs and climate resistance tests
- + Scenario analysis (lack of data + uncertainty)

Profitability

- Green CMU, green labels, sustainability-linked bonds
- + Derisking State (green investment gap)

Intrinsic rather than extrinsic objectives

This choice of an incremental strategy rather than a radical one favours the intrinsic objectives

- For the *phase-out*, finance must survive the shock, not trigger the transition
  - $\rightarrow$ e.g. No discussion of climate bad banks
- For the "phase-in", financing must remain private and profitable
  - $\rightarrow$ e.g. No discussion on public funding

An unresolved contradiction

Finally, a contradiction remains unanswered: the price stability puzzle **Problem 3** : Transition leads to inflation

- Fossilflation - Carbon prices, energy shortages, etc.
- greenflation - Shortages of critical materials

$\rightarrow$ In the current paradigm, inflation = rising rates. **No win/win narrative**

- Importance of the discount rate for the phase-in
- 'Greenflation doomloop'

Conclusion

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(1) Financial 'guardians' must balance intrinsic and extrinsic objectives
(2) They seek to reconcile these objectives, but the institutional and paradigmatic framework leads them to favour the intrinsic objectives
(3) To accelerate the transition, a more ambitious paradigm shift seems necessary, especially in the face of transition-driven inflation.