

# Guardians of the regime

## Central banks and the dual role of finance in sociotechnical transitions

*Emanuele Campiglio, Jérôme Deyris, Frank Geels, Christopher Schroeder*

BEYOND NORMAL CENTRAL BANKING?

THE POLITICAL ECONOMY OF CONTEMPORARY MONETARY POLICYMAKING

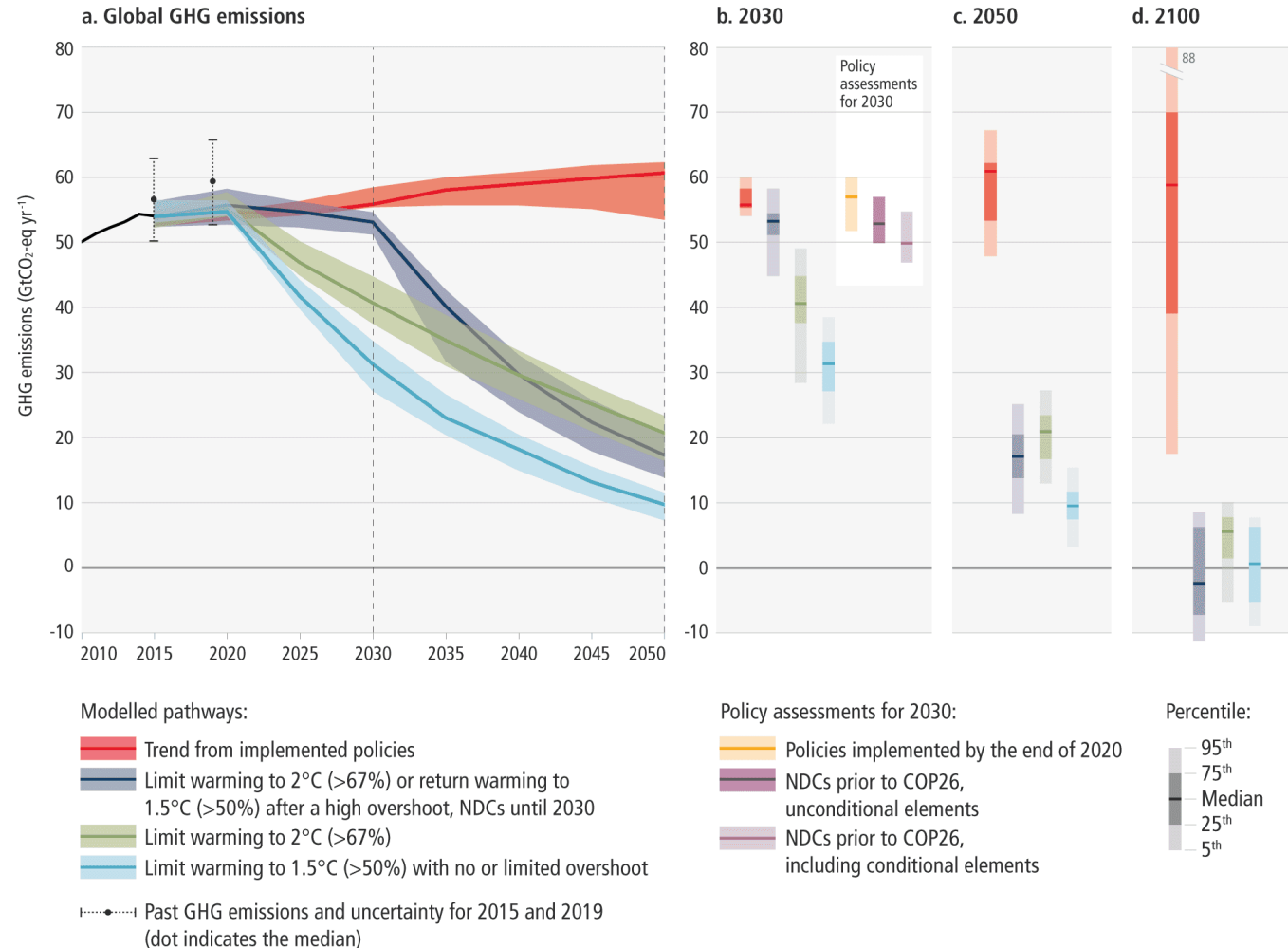
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# Motivation



Projected global GHG emissions from NDCs announced prior to COP26 would make it likely that warming will exceed 1.5°C and also make it harder after 2030 to limit warming to below 2°C.

- Climate change → Rapid decarbonisation
- Explosion of policy debate on sustainable finance
  - Physical/transition/liability financial risks
  - Strong involvement of central banks and financial supervisors



# Research questions

- Why are CBs and FSs acting on climate-related matters?
- How do they choose their policy strategy?
- → What consequences does/will their involvement have on the transition dynamics?
- → Can we improve the institutional configuration in support of a rapid and smooth transition?

# A novel interpretive lens

- We use the lens of Socio-Technical Transition (STT) theory
  - In particular: Multi-Level Perspective (MLP) framework (Geels 2002)
- We conceptualise energy and finance as coevolving “socio-technical systems”
  - Common features: intrinsic objectives, policy paradigms, regime guardians
  - Finance regime peculiarity: extrinsic objectives, requests from other regimes, intermediated via landscape
- We study the European Union case
  - Interviewees with relevant stakeholders

# Main findings

- ‘Transformation path’
  - Aim of guardians: reconcile intrinsic objectives and extrinsic requests from energy regime
  - Guardians reinterpret extrinsic requests using their policy paradigm
- Win/win narratives (as much as possible)
  - Provide minimal possible response to extrinsic requests so to claim action..
  - .. While protecting their intrinsic objectives
  - → incremental change within an intact regime architecture
- This creates delays to the transition
  - Energy regime complex is much weaker
- Who protects the energy regime?
  - Solution 1: extend finance regime intrinsic objectives
  - Solution 2: strengthen energy regime guardians

# Coevolving regimes

A conceptual framework

# Socio-technical systems: a multi-level perspective

- **Socio-technical systems**

- Provide societal functions (e.g. energy, mobility, housing)
- Three main levels: landscape, regime, niches (Geels, 2002)

- 1. Regime:** rules/institutions underpinning socio-technical system

- Seven coevolving dimensions: Techno-scientific knowledge; Markets, user practices; Industry, networks; Technology; Infrastructure; Culture, symbolic meaning, norms; Sectoral policies
- + Finance (Geddes and Schmidt 2020)

- 2. Landscape:** exogenous environment beyond the influence of regime

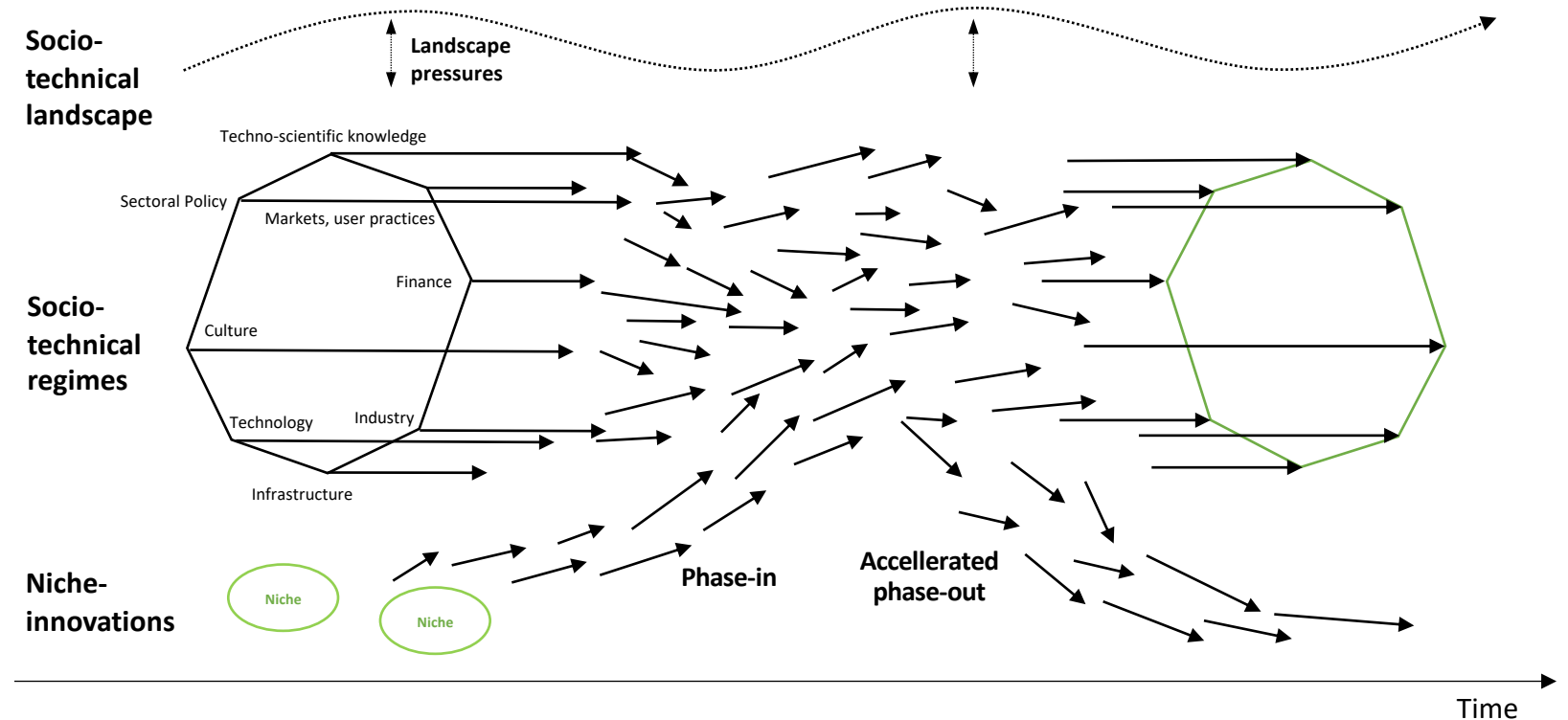
- Demographics, geopolitics, wars, economic crises, ideology, etc.
- Actors not belonging to the socio-technical system

- 3. Niches:** Emerging social/technological innovations

- Radically different from regime, can disrupt stability

# Evolving socio-technical systems

- STS are dynamic in nature
  - Pressures from landscapes (e.g. macro policies)
  - Endogenous regime change (usually self-preserving)
  - Emergence of niches (new technologies) disrupting incumbent





# Common regime features

- **'Intrinsic' objectives**

- Key conditions to preserve dynamic stability and self-preservation of regime
  - Energy: security, affordability, sustainability (Newell, 2021)
  - Finance: profitability, financial stability, monetary stability
- Intrinsic objectives are also dynamic

- **Regime 'guardians'**

- Public institutions tasked with supporting regime and achievement of intrinsic objectives
- In the face of uncertainty and complexity – they make use of interpretive framework to understand problems and identify solution (policy paradigms)

- **Policy paradigms** (Hall, 1993)

- Dynamically stable and coherent set of cognitive, normative and regulative rules
- A policy paradigm can create path-dependency once embedded in regulative rules (institutionalised) → **Institutional paradigms** (guardians)

# The energy regime

- Most relevant regime for sustainability: the **energy regime**
  - Energy sustainability intrinsic objective
  - Different from past socio-technical transition:
    - Subject mainly to the landscape pressure (+ niche disruptions)
    - Subject to time pressure
- Two key dynamic transition processes
  - **Phase-in** of low-carbon energy technologies
    - Renewables, electrification, efficiency, hydrogen, etc.
  - **Phase-out** of high-carbon energy technologies
    - Fossil and fossil-based (stranding?)
- Negative repercussions on other energy regime objectives (affordability/security)?

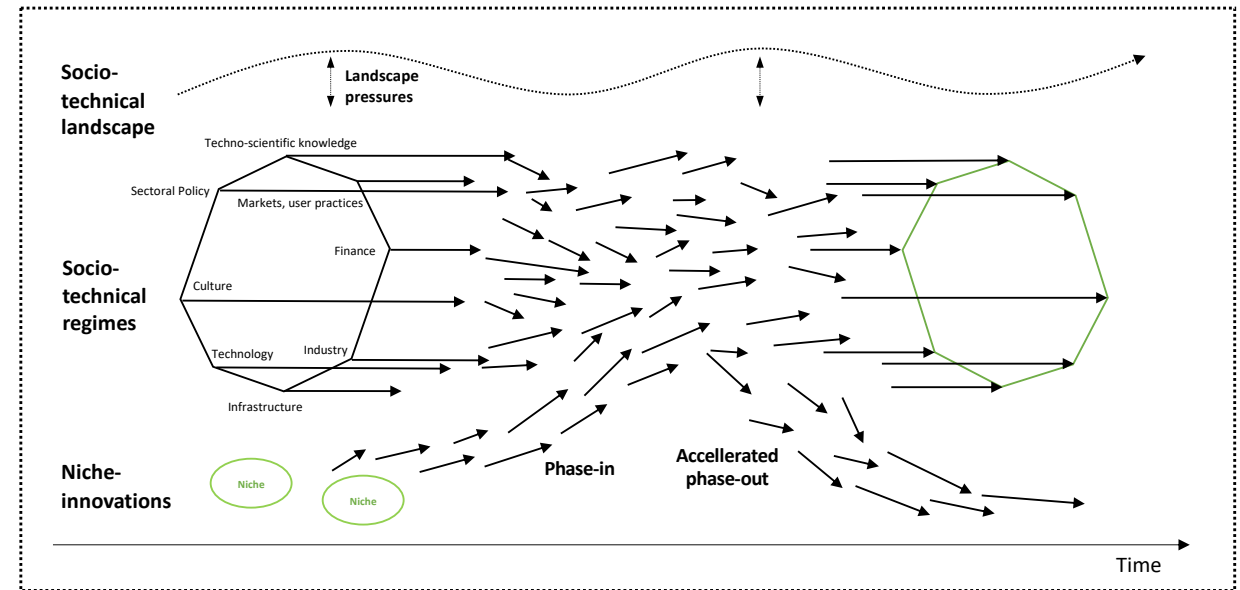
# Who's in charge of the energy regime?

- Government
  - Multi-level governance: supra-national, national, regional
  - Functions across multiple ministries (conflicting?)
- Delegated authorities
  - Environmental agencies, energy regulators
- International climate governance
  - UNFCCC, IEA
- --> Fragmented guardianship

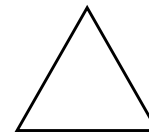
**Guardians**



- National energy regulators
- European Commission
- Delegated authorities



**Intrinsic objectives**



- Energy sustainability
- Energy security
- Energy affordability

# The role of finance

- Finance is key in both phase-in and phase-out dynamics
  - **Low-carbon finance:** credit is needed for low-carbon firms to invest
  - **Stability:** phase-out of incumbents can't disrupt rest of economy (no macro-financial risk propagation)
- Finance can also be conceptualised as a socio-technical system
  - Regime, niches (blockchain, ethical banks), landscape pressure
  - But special! Linked to all other regimes through its function of enabling economic activity and innovation
  - Not so studied in STT literature
    - But: Geddes&Schmidt, 2020; Falcone et al., 2018; Naidoo, 2020; Seyfang/Gilbert-Squires, 2019; Urban/Wojck, 2019

# Finance regime objectives

- **Intrinsic** objectives of financial regime
  - Profitability: credit/investment to activities with best risk-return profile
  - Financial stability: no large disruptions to financial wealth
  - Monetary stability: avoid large fluctuations in prices and exchange rates
- **‘Extrinsic’** objectives of the financial regime
  - Requests from other regimes (e.g. low-carbon firms need funding!)
  - Intermediated by the landscape (politicians, civil society, media)
  - Regime guardians as **‘receptors’** of landscape pressures: reconcile intrinsic and extrinsic objectives

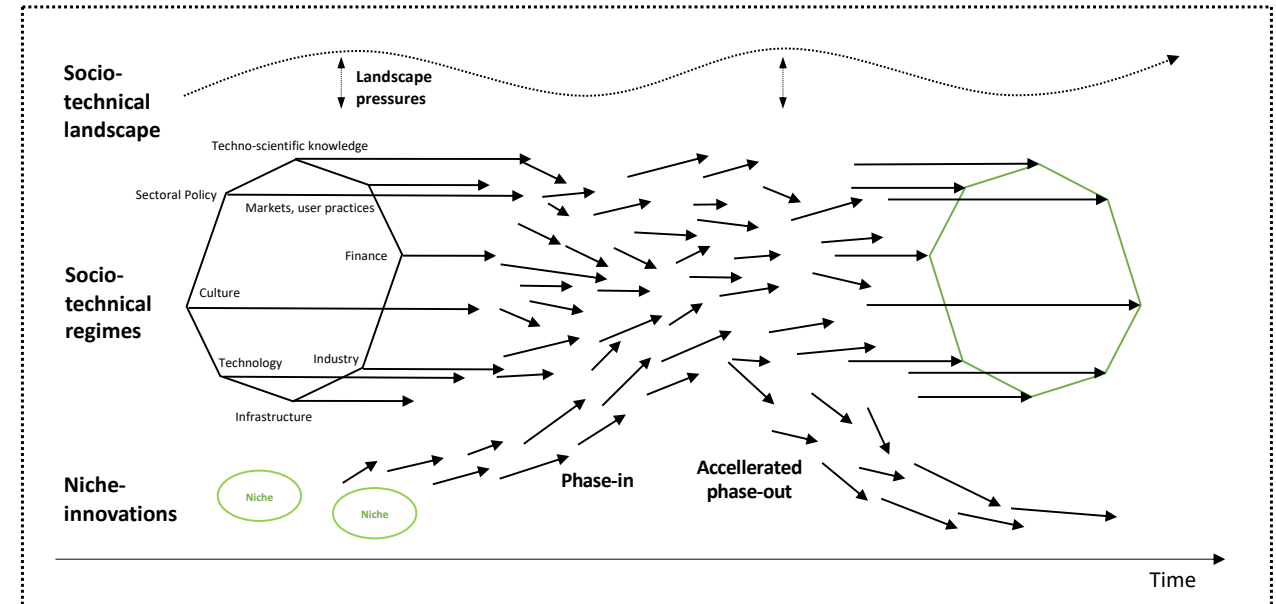
# Who's in charge of the finance regime?

- Governments
  - National/regional governance
  - Finance/economy ministry
- Central banks
  - Delegation from government to achieve specific goals (price stability, financial stability)
  - Evolving powers/responsibilities (e.g. post-GFC)
  - Central bank independence?
- Financial supervisors
  - Micro-prudential and market-specific
  - Delegation usually weaker than for CBs
- --> Much clearer guardianship than energy regime, but involving possibly misaligned institutions
  - See green supporting factor debate

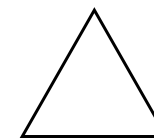
**Guardians**



- National financial regulators
- European Commission
- Central banks and supervisors



**Intrinsic objectives**



- Financial stability
- Monetary stability
- Profitability

# Methodological approach

# Methodological approach

- Single-case study: European Union
- Interviews with relevant stakeholders in finance regime
  - Central banks and financial supervisors
  - Industry practitioners
  - Landscape actors
  - Triangulated with speeches, reports, media articles, etc.
- Interview guide:
  - Present: delay/accelerate phase-in/phase-out
  - Short-to-medium term e.g. financial instability, energy insecurity...
  - Central bank reaction counteracting/exacerbating effects
  - Feedback effects delay/accelerate phase-in/phase-out...



# List of interviewees (so far)

#	Category	Organization	Country	Interviewee's role
1	Financial Incumbent	Group of Private Banks	France	Head of Sustainable Finance
2	Financial Incumbent	Sustainable Asset Management	France	CEO
3	Financial Incumbent	Sustainable Asset Management	France	CEO
4	Financial Incumbent	Asset Management	UK	Portfolio Manager Sustainable Investment
5	Financial Policymaker	National Central Bank	Austria	Senior Expert
6	Financial Policymaker	National Central Bank	Denmark	Senior Expert
7	Financial Policymaker	National Financial Supervisor	France	Leadership Function
8	Financial Policymaker	National Financial Supervisor	France	Senior Expert
9	Financial Policymaker	National Central Bank	France	Leadership Function
10	Financial Policymaker	National Central Bank	Germany	Leadership Function
11	Financial Policymaker	National Central Bank	Germany	Portfolio Manager
12	Financial Policymaker	Supranational Central Bank	Supranational	Senior Expert
13	Financial Policymaker	Supranational Central Bank	Supranational	Senior Expert
14	Financial Policymaker	Financial Supervisor	Supranational	Expert
15	Financial Policymaker	Financial Supervisor	Supranational	Senior Expert
16	Financial Policymaker	National Central Bank	UK	Senior Expert
17	Landscape Actor	NGO	France	Expert
18	Landscape Actor	University	UK	Academic Expert

# Findings

# Reconciling intrinsic and extrinsic objectives

- Two main extrinsic requests from energy regime (via landscape pressures)
  - Provide finance to firms perceived as possibly less profitable or more risky
  - Divest from (historically safe and profitable) high-carbon incumbents
- Finance regime guardians are public receptors of these pressures
  - They need to respond to landscape pressure (with the rest of the regime on board)
  - However: main priority are always intrinsic regime objectives! → regime stability
  - Extrinsic requests reformulated to make them compatible with regime stability
    - → None or only incremental changes in the policy paradigm needed

# Win/win narratives

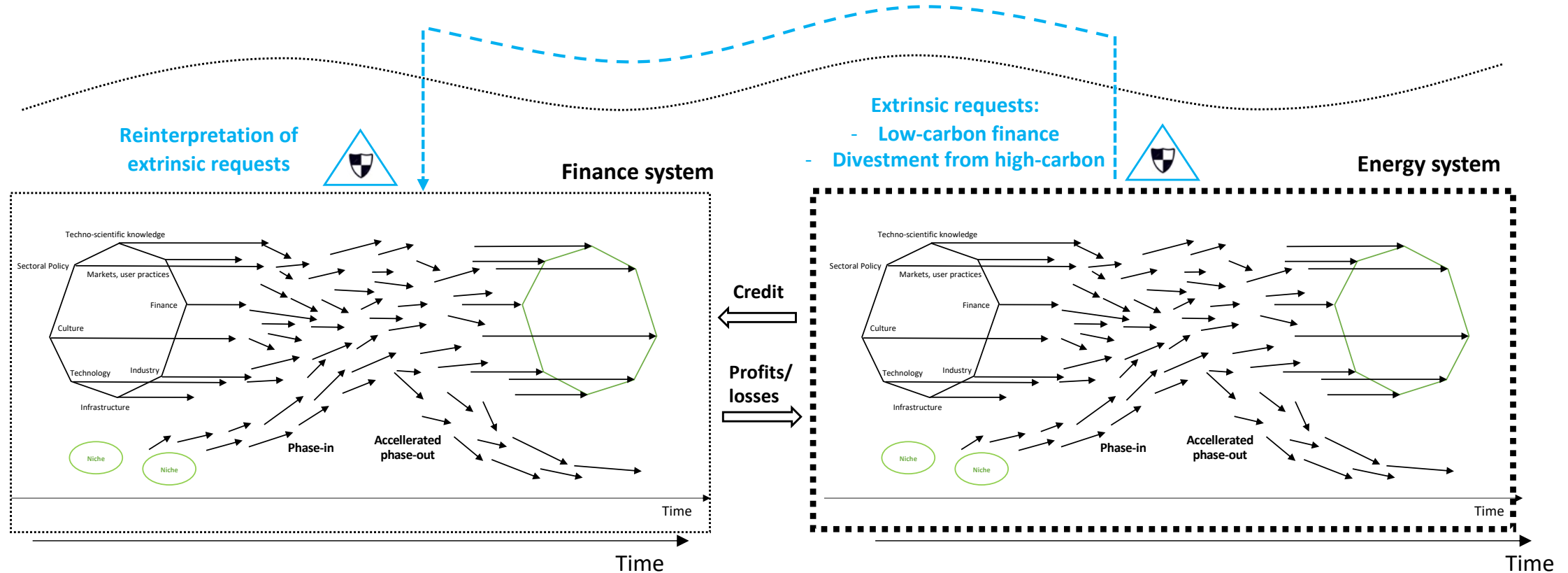
- Win/win as way to claim intrinsic/extrinsic objectives alignment
  - Public claim: satisfying extrinsic objectives is compatible/conducive to intrinsic objectives
  - Hidden agenda: find strategies to minimise losses for regime, while conceding a minimally sufficient response to extrinsic objectives
- Two main current win/win narratives
  - Going low-carbon helps financial stability (climate-related financial risks)
  - Going low-carbon helps profitability (green growth, sustainable finance, ESG)
- But: don't go too quickly!
  - Investing too abruptly on low-carbon → green bubble risk, greenflation
  - Divesting from high-carbon → carbon bubble, transition risks, stranding

# Regime coevolution

Socio-technical landscape

Socio-technical regimes

Niche-innovations



# A transformation path

- Formulation of policy solutions through the prism of their policy paradigm
  - Informational policies: taxonomy, risk assessment, disclosure (under risk calculability assumption)
  - De-risking
- Incumbents modify their innovation activities
  - ESG/responsible/sustainable investment strategies and public acceptance
- Emergence of new networks of actors to bring about the necessary regime adjustments
  - NGFS, TCFD, etc.
- → The ensuing process leaves the regime architecture intact
  - Correspondingly, faith in policy paradigm ability to develop solutions to problems prevails
  - The paradigm might be 'stretched' to bridge intellectual inconsistencies that may arise
  - New rules add to the regime architecture without replacing/overriding old

# The monetary stability embarrassment

- Extrinsic/intrinsic objectives alignment
  - Guardians first focused on financial stability and profitability
  - Extrinsic/intrinsic objectives can be presented as compatible (win/win)
- No alignment for monetary stability (yet)
  - Extrinsic requests might lead to inflation + price stability interventions will slow down phase-in: hard to find win/win solutions
  - In absence of paradigm shift, guardians will have to favour their regime intrinsic objective → obstacles to transition

# Asymmetric guardians

- Alignment of intrinsic objectives
  - Financial regime: well aligned intrinsic objectives → Guardians cooperation easier
  - Energy regime: conflicting intrinsic objectives (trilemma) → Cooperation harder
- Guardianship strength
  - Stronger delegation/independence to financial regime guardians
  - Supranational authorities:
    - EBA, ESMA, EIOPA vs ACER
    - Capital Markets Union vs Energy Union
  - → Stronger national fragmentation in energy regime
- → Slow down in pursuit of extrinsic objectives
  - Brakes on both phase-in and phase-out to protect finance regime stability



# 1. Internalise extrinsic objectives

- Add intrinsic objectives to finance regime and its guardians
  - ..shifting them away from energy regime guardians
- Several possible strategies
  - Add climate objectives to mandate (Hungary, BoE, ..)
  - Dual interest rate policy (e.g. Green TLTROs) to subsidise phase-in
  - Carbon bad bank to allow for faster phase-out (at the cost of moral hazard)
  - Governments stepping in the financial regime again (price controls?)
- However: this doesn't solve objectives frictions
  - If energy sustainability leads to price instability, what would the finance regime guardians do?

## 2. Strengthen energy regime guardians

- Heavy credible commitment problem
  - Forward-looking policies crucial for internalising climate-related market failures (e.g. carbon pricing)
  - However: change in policy-makers, social protests, exogenous shocks
  - → Heterogeneity of carbon price expectations → weaker low-carbon investments
- Can we transfer ideational/institutional framework around finance regime guardians independence to energy regime?
  - If not, energy regime guardians crushed by financial regime guardians
- A Carbon Central Bank?
  - New delegation to independent institution with mandate to keep stable inflation of carbon prices

# Conclusions

# Conclusions

- We study sustainable finance policy-making from a STT perspective
  - Both energy and finance interpreted as socio-technical systems
- Energy socio-technical system needs to go through two simultaneous process
  - Phase-in + phase-out
- This creates extrinsic requests onto the finance regime (via landscape pressure)
  - Finance for low-carbon technologies
  - Divestment from high-carbon incumbents
- Guardians of finance regime receptors of extrinsic requests
  - They reinterpret them using their policy paradigm prism, to make them compatible with regime intrinsic objectives
  - Creation of win/win narratives, but ultimate aim is to protect regime intrinsic objectives
  - → Slow down of transition dynamics
- Energy regime is not strong enough to fight back
  - Solution 1: extend finance regime intrinsic objectives
  - Solution 2: strengthen energy regime guardians



# Thank you!

[Emanuele.campiglio@unibo.it](mailto:Emanuele.campiglio@unibo.it)

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