

Planetary boundaries and financial policy: The Dutch nitrogen crisis

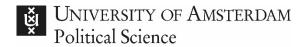
May 2019: Dutch judges strikes down existing permitting rules for nitrogen-emissions (PAS)

Large exposures of Dutch banks, in particular Rabobank (Van Toor)

2022 nitrogen reduction target leads Rabobank to mark down portfolio, but ultimately saved by

€30 bn government bailout with €4 bn contribution from Dutch banks





Today

- Climate & environment didn't have a place in pre-2008 financial policy, but this has evolved since
- Risk-based approach focused on climate change has (1) proven harder to implement than expected and (2) omits broader planetary boundaries.
- Effective financial policy in the face of planetary boundaries requires alignment-focused approach to prudential policy

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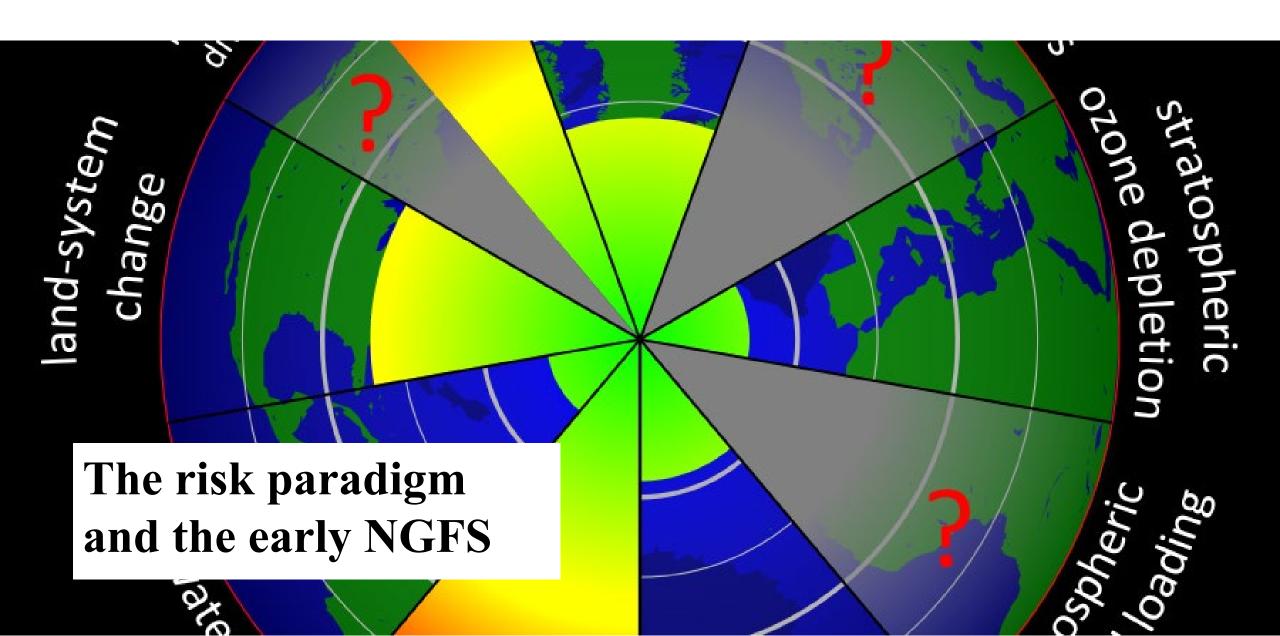


A Risky Bet: Climate Change and the EU's Microprudential Framework for Banks

Agnieszka Smoleńska* and Jens van 't Klooster**

Net zero transition plans A supervisory playbook for prudential authorities

Simon Dikau, Nick Robins, Agnieszka Smoleńska, Jens van 't Klooster and Ulrich Volz





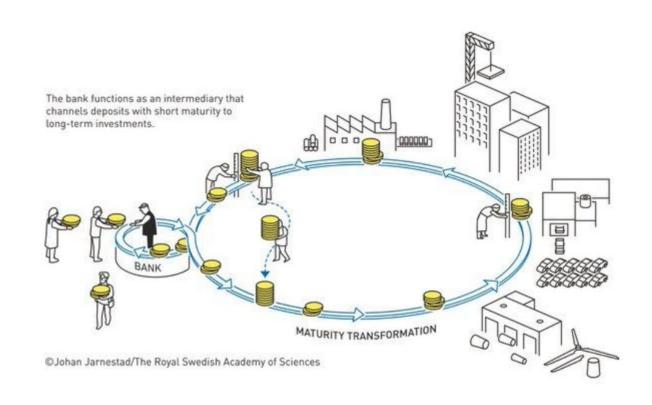
Banks in the risk paradigm

Social purpose of banks

- Banks produce information cashflows of borrowers (K) and monitor their behaviour (D) (Diamond 1983)
 - Economies of scale
 - Diversifying risk

Financial policy

- Enabling market discipline & preventing moral hazard
- Preventing bank run dynamic



The 1990s risk paradigm and the Basel framework

Autonomous domain of policymaking, compatible with CBI

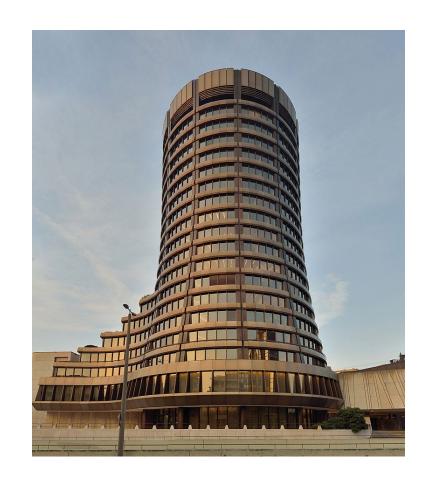
One objective: optimal level of risk-taking

Instrument: risk-weighted capital requirements

• Pillar I: Regulatory capital requirements

• Pillar II: Supervision

• Pillar III: Disclosure



Post-2008 Macroprudential turn and climate related risk

Macroprudential turn

Investors are often unable/unwilling to estimate certain types of financial risk, in particular those tied to infrequent or new but highly impactful events

Carbon bubble frame

"The recent financial crisis has shown that capital markets were notself-regulating and required unprecedented intervention; regulators were not monitoring the biggest systemic risks and so missed key intervention points" (Campanale, Leggett, and Leaton 2011)

Financial policy enters the Anthropocene (Carney 2015, TCFD, early NGFS)

Real economy market failure (low cost of carbon)

- Externality that is not taxed
- Misallocated investment

Financial market failure (inadequate screening)

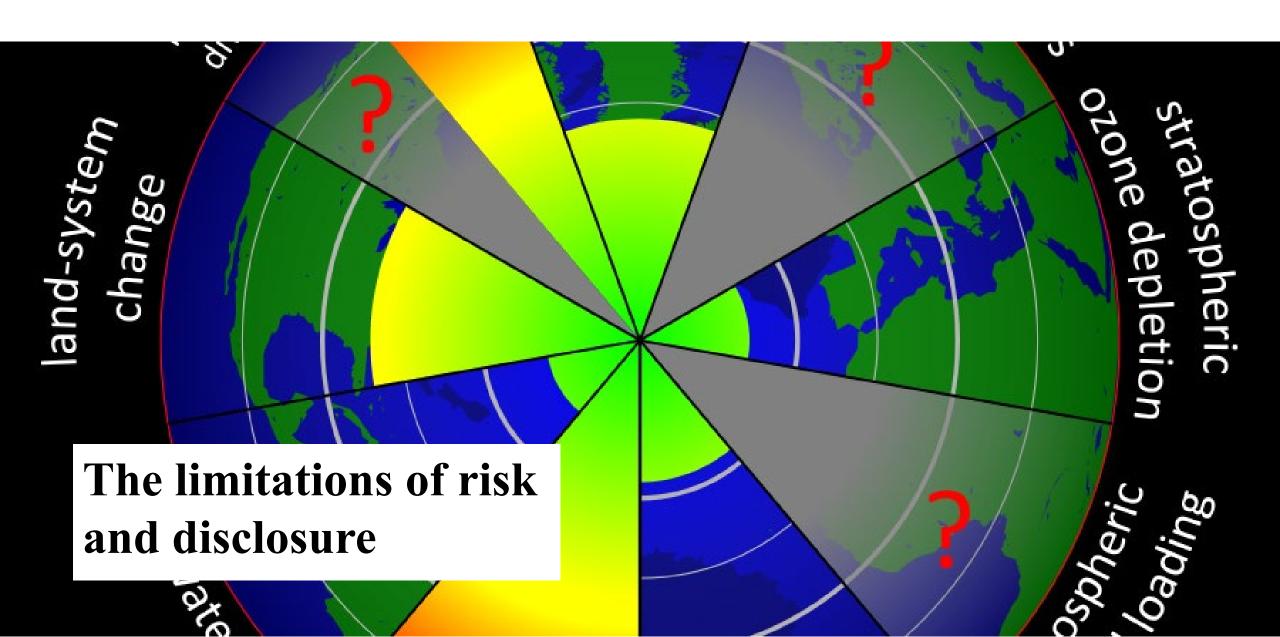
- Banks unable to monitor firms and themselves escape market discipline
- Solution: managing climate changes as source of financial risk

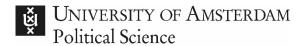
EU-level policymaking

Two prongs (Smolenska & van 't Klooster 2022)

- Market-focused measures: Improved corporate disclosure for strategy, risk management and emissions (Taxonomy, CSRD, CSDDD)
- Micro-prudential reforms: risk-focused

 - Pillar 2: Stress testing and enhanced supervisory expectations
 - Pillar 3: Disclosure of risk and alignment
- Bank-led and policymaker-led approaches



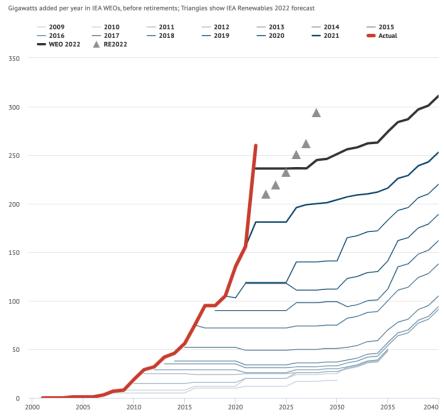


Special features of C&E risk

Are individual investors able to estimate risk based on emissions disclosure from firms? (Bolton et al 2020; NGFS 2021; Chennet 2021; Dikau et al 2022)

- Time horizon and complexity
- Backward-looking estimates
- Non-existence of credible transition pathways and system-level sustainability criteria

The rapid **rise of solar** continues to **outpace IEA outlooks** – but remains short of what would be needed for 1.5C

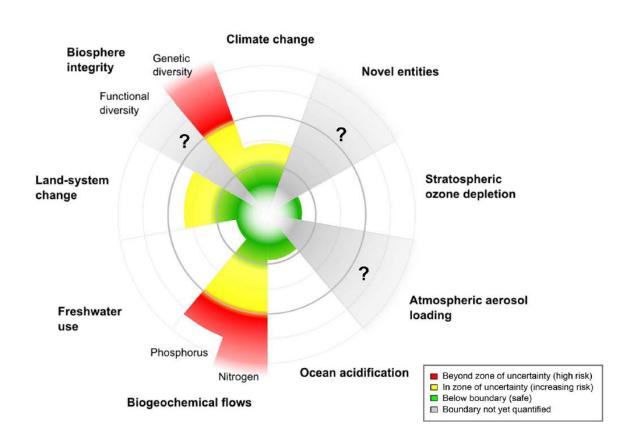


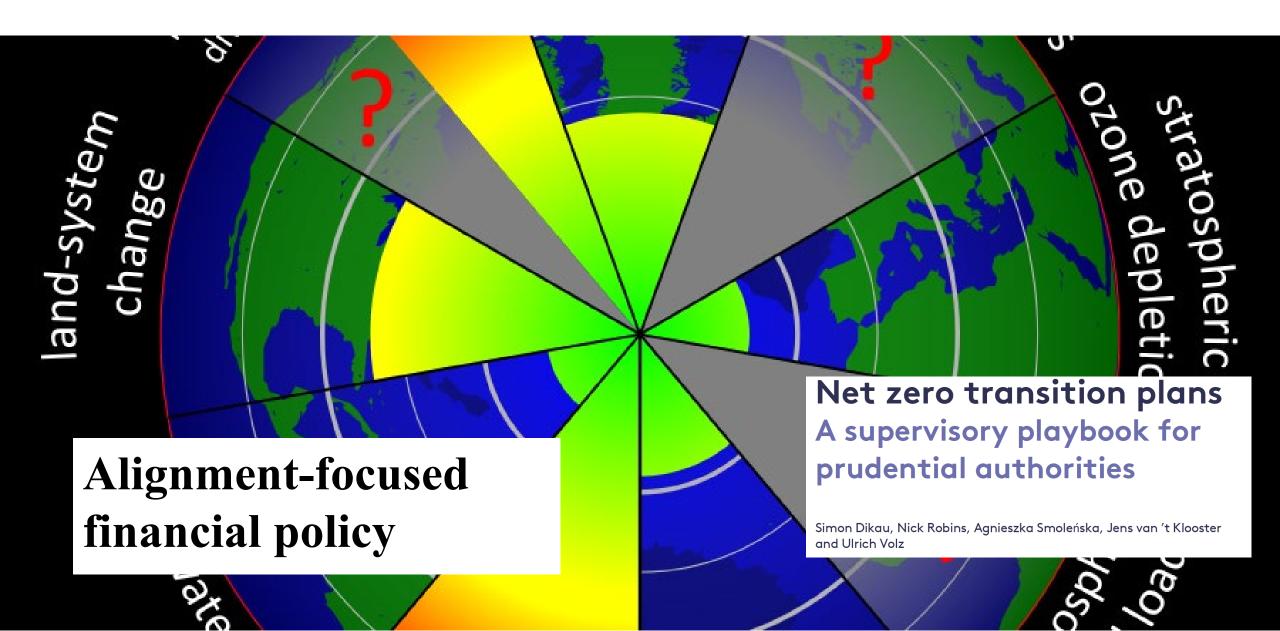


Planetary boundaries

More than just greenhouse gases

- No clear way to aggregate different boundaries (rare earths etc)
- Less well-defined or no global policy objectives, local impact
- Unclear how to develop metrics







Alignment-focused financial policy

Risk paradigm: accurate probabilities for potential losses

Alignment paradigm: alignment of portfolio with credible transition pathway. Examples:

- Stress testing and scenario analysis
- ESG taxonomies
- Credit policy
- Transition plans

Net zero transition plans

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Detailed multi-year account of targets and actions towards a sustainable business model

Type 1: Voluntary, market-led <u>net</u> <u>zero</u> transition plans lead the way



Type 2: Mandatory corporate disclosure net zero transition plans



Type 3: Mandatory <u>prudential</u> transition plans focused on risk of misalignment with transition

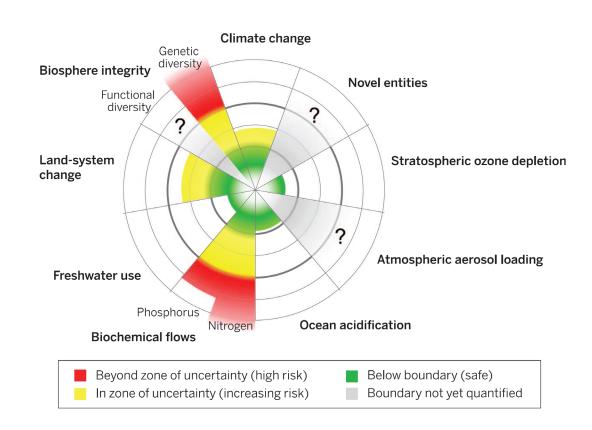


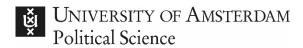


Transition planning

Supervision focused on TP alignment:

- Aid the identification of shortand medium-term risks.
- Proxy for unmeasurable longterm risk.
- Provide macroprudential insight





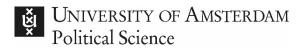
Major challenges going forward

Financial policy no longer an autonomous domain of policymaking

- Expertise and knowledge: The development of credible transition pathways
- Legitimacy: Adequate constitutional structures for developing these

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Conclusion: Financial policy within planetary boundaries

- Climate & environment are at the core financial policy today
- Risk-based approach inadequate:

 (1) climate-related risk and (2)
 neglects planetary boundaries.
- Effective policy requires alignment-focused rather than narrow financial approach

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