Rotterdam School of Management
Erasmus University

What if central banks took Paris seriously?

Presentation to ECB Macroprudential Policy Group

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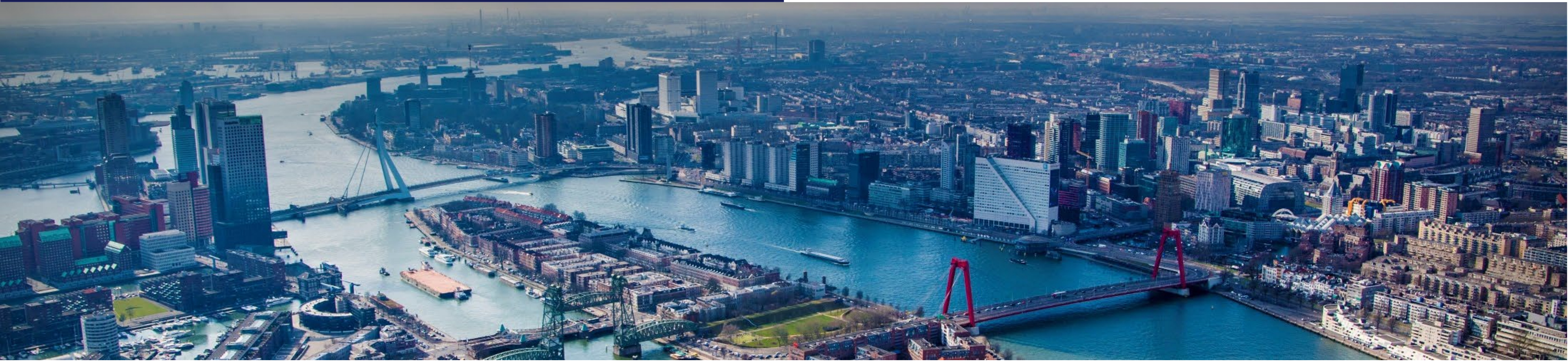

Introducing the authors
The Erasmus Platform for Sustainable Value Creation brings together academics and practitioners to generate insights

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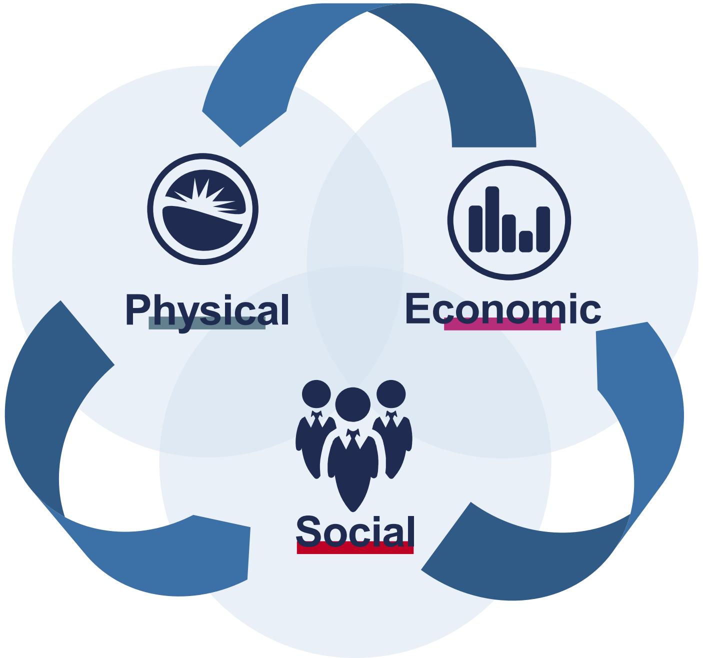
Introducing Climate

Supervision of climate has been complicated by complex interactions between physical, economic and social dimensions



Physical

- Physical Risk
- Tipping points & chain reactions
- Consequences e.g. biodiversity & pollution

Economic

- Traditional financial stability risks
- Company transitions
- Innovation

Social

- Transition risk
- Legal risk
- Consumer preferences

"Supervising climate "is particularly challenging because of the radical uncertainty associated with a physical, social and economic phenomenon that is constantly changing and involves complex dynamics and chain reactions"

(Bolton et al, 2020)

Introducing Paris
Financial instability is result of financial sector not fully internalising cost of Paris into their decision making

- Paris **decreases physical risk**, as it is first and foremost an endeavour to avoid climate catastrophe
- Perhaps counterintuitively, Paris also **decreases transition risk**, by making the net-zero goal clear, explicit and enshrined in international treaty, it should make the transition to a low carbon economy more orderly and predictable
- What Paris has actually done is **introduce a cost of transition** by determining that there are books of business with underlying collateral based on assets which will at some point become 'stranded assets' by definition

*"The source of financial instability in the system is the results from the financial sector **insufficiently internalising** of the cost of transition – it is treating climate (exogenously) as a risk which may happen at some point in the future, as opposed to treating climate (endogenously) as a transition which must be completed by 2050 by law."*

Building on Paris

Our analysis abstracts from Paris' legal dimension and postulates what supervisory framework minimises instability during the climate transition

Climate as a Risk

Climate as a legal commitment to transition

Paris – 2015 international treaty with 195 signatories limiting global warming to 1.5°C – 2 °C by mid century

2021 EU climate law – internalises Paris among member states and is the legal basis for 'net-zero' by 2050

Financial stability mandate - transition plans under CRD VI provide a legal basis but require clarification

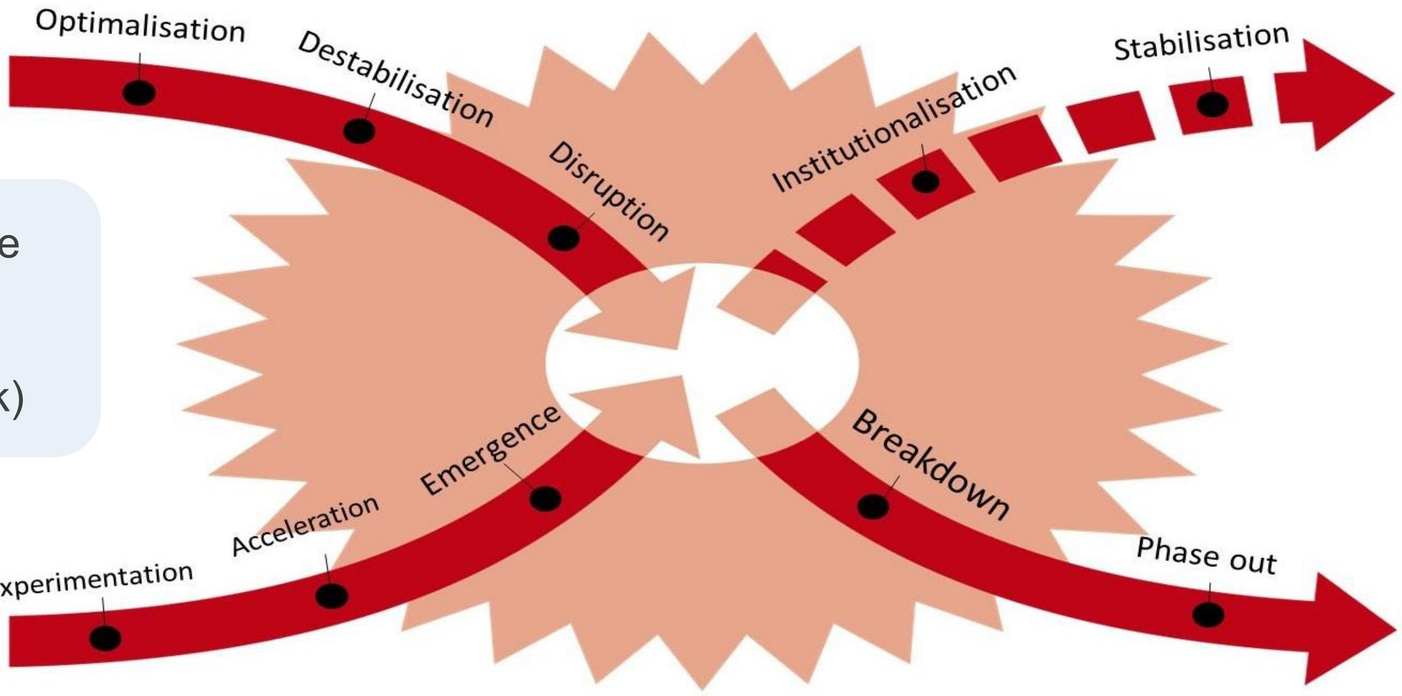
*"The policy aim of any climate transition supervisory framework should be to maintain financial stability during that transition. Here it is best to **start with knowns** and to build uncertainty and risk into the framework after. Known is that policy makers have legally determined that the **net-zero needs to be achieved by 2050**"*

X-curve of transition dynamics

The climate transition which Paris requires will be a process of creative destruction

Fossil-fuel

These loans are still profitable (Engle, 2023, Termination risk)



Renewables

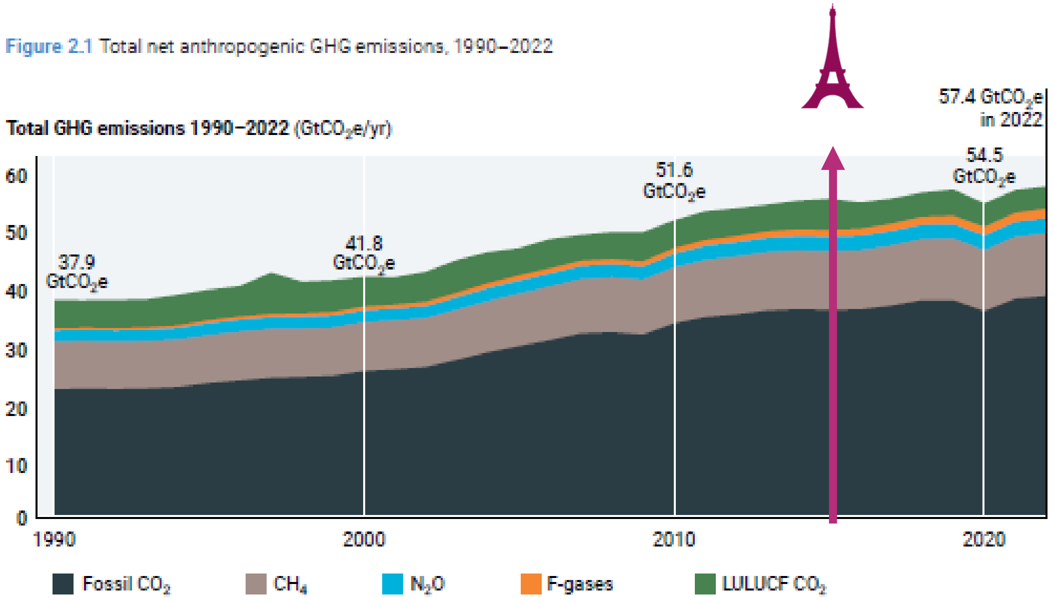
Source: Loorbach, Frantzeskaki and Avelino (2017)

Historic emissions data

Since signing Paris worldwide emissions has continued to rise with emissions in the EU27 declining only slightly

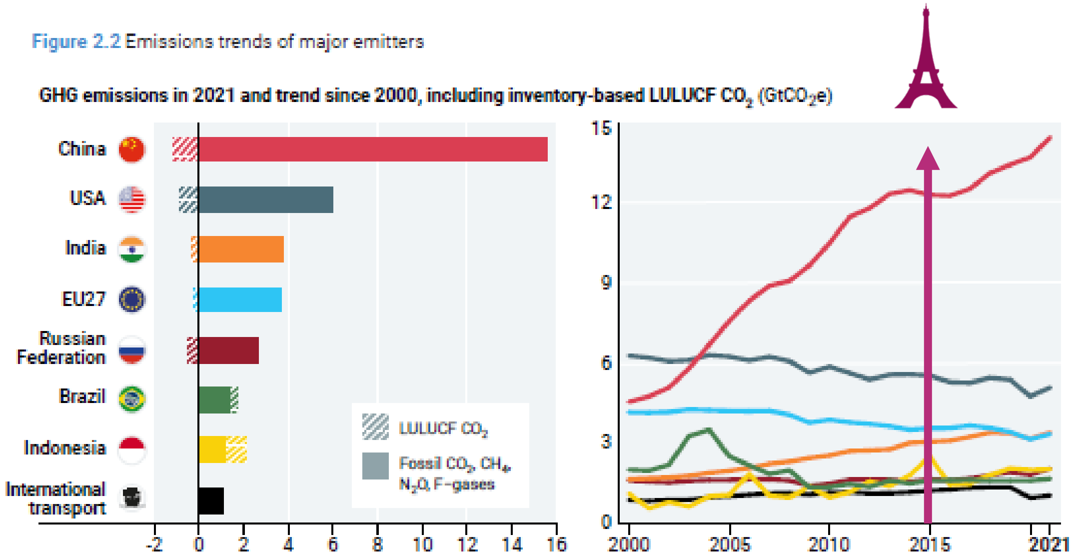
Worldwide

Figure 2.1 Total net anthropogenic GHG emissions, 1990–2022



Regional

Figure 2.2 Emissions trends of major emitters



Source: UNEP 'Emissions Gap Report 2023: Broken Record' (2023)

Note: *"while for the oil and gas sector, production is declining within the euro area, banks are continuing to finance the expansion of production outside the euro area"*

Source: Fossil Fuel Finance Report by Banking on Climate Chaos (2024)

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Supervising Paris
Other things being equal, a more gradual transition leads to least amount of financial instability

From micro to macro management

- Both globally and in the EU, financed emissions have not come down in line with Paris
  - ECB 2024 report indicates that 90% of 95 significant banks are misaligned

- To get to Paris, financed emissions will have to come down by **4%** (100%/25 yrs) annually
  - Had we started in 2015, it would have been **3%** (100%/35 yrs) annually
  - Without material improvement by 2030, it will become **5%** (100%/20 yrs) annually

- Consequently, financial instability resulting from the climate transition has **increased by ~1/3** (from 3% to 4%) since 2015

Central bank instruments

Build-up of ‘climate bubble’ requires that central banks take stronger action to measure and manage financial instability resulting from Paris

Measure

- Although methodologies are generally available to measure financial stability related to climate transition, they are not universally applied:
  - PACTA, SBTi, PCAF, FINZ
- EU CSRD requires disclosure of financed emissions, but anticipated use of phase-in period means that full visibility of baseline and targets may not become apparent until 2027

Manage

- Carbon Taxes set by **policy makers** (European Commission/governments) are first best
- Central Banks (as **policy takers**) nevertheless have instruments to manage financial stability:
  - Stress Tests
  - Bank Transition Plans (CRD VI)
  - Systemic Risk Buffers
  - **Bank Specific Macro Limits**
- Our conclusion is that from an efficacy perspective limits are the preferred instrument, even if they require more alignment internationally and with policy makers to implement and enforce

Calibrating the guided transition
To get in control, central banks need to work urgently at operationalising

- There is no reason why central banks shouldn't and couldn't require better measurement of climate transition immediately!

- Our proposal for guided transition to manage and enforce a **hard limit on financed emissions** does require urgent work to develop and operationalise. Our **recommendations** include:

    - **Design of the guided transition instrument** - 4% reduction per year

    - **Clarification of the legal basis** – incorporate in bank transition plans (CRD VI)

    - **Mitigation of global leakages** – 1. limits location based; 2. all sectors (ESRB); 3. global level (FSB)

- Although operationalisation is far from straightforward, there are a number of knowledge networks (e.g. NGFS, ESRB, GFANZ) which can be leveraged and international networks (e.g. FSB, G20, COP) to clarify international treaty requirements and to overcome collective action problems

Conclusion

Move beyond…

“Sceptical readers may surmise that ***‘something’ will be sorted out*** *to avoid crisis. Perhaps Paris objectives will be relaxed or their non-compliance will go unenforced. Or alternatively we may be saved by some yet-to-be-invented miracle technology.”*

… towards

“It is time to ***flip the default*** *around and, until we are being told otherwise, treat the Paris commitment as the will of policy makers and manage financial stability accordingly with guided transition.”*

Discussion

Questions & Answers

Next steps