IMF – SINGAPORE REGIONAL TRAINING INSTITUTE

Financial Regulation, Climate Change, and the Transition to a Low-Carbon Economy
A Survey of the Issues

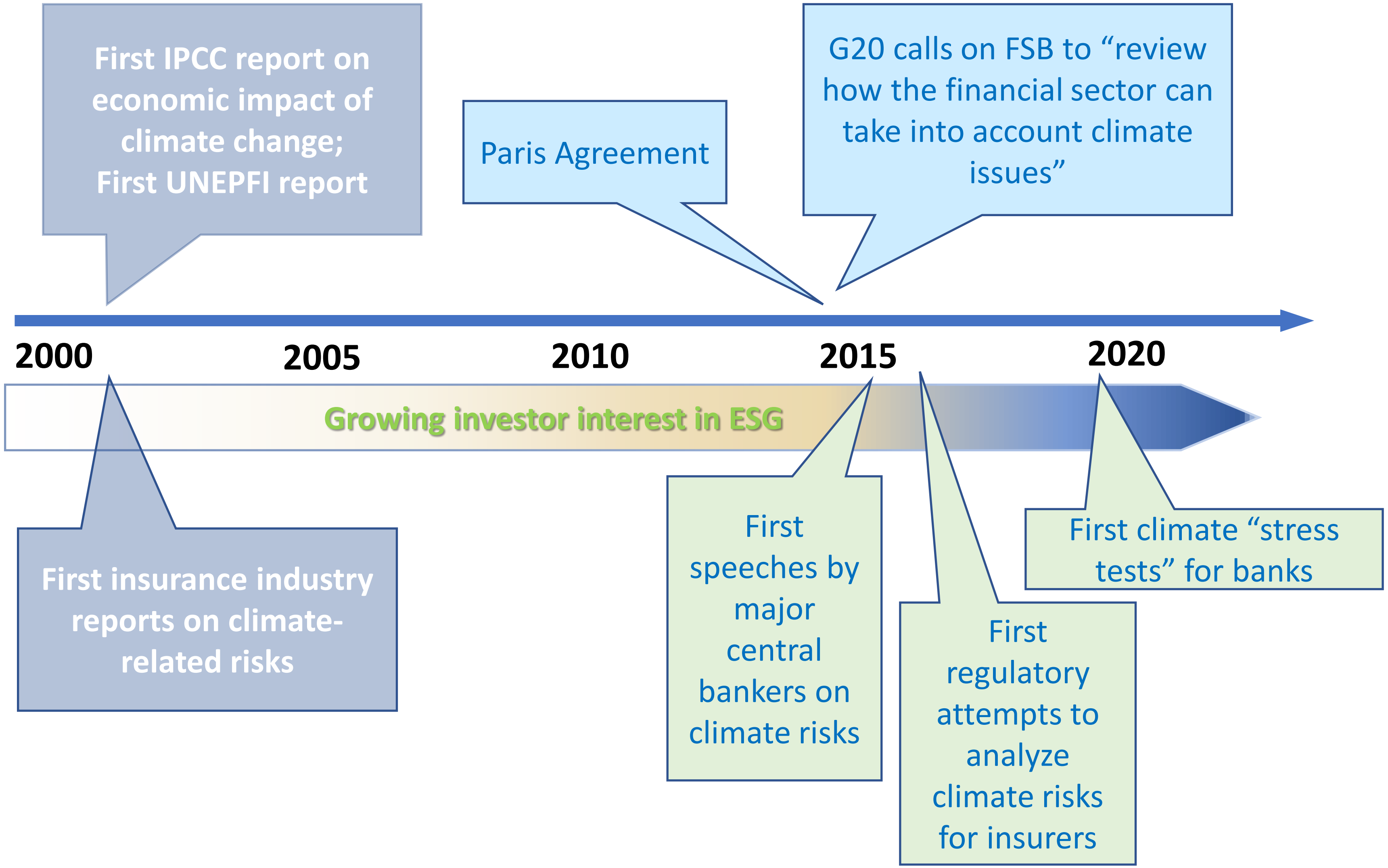
Dimitri Demekas (LSE and Bank of England), Pierpaolo Grippa (IMF-MCM)

October 31, 2022

OUTLINE

- *Climate change and the financial sector: A Timeline*
- *Key Questions / Key Findings*
- *Closing information gaps, improving disclosure, promoting standards*
- *Climate risk analysis: the state of the art*
- *Should Financial Policy and Regulation Promote Low-Carbon Transition?*
- *Walking a tightrope to net zero*

Climate change and the financial sector: A Timeline



Key Questions

- *What is the role of financial sector policies in the transition to a low-carbon economy?*
- *What is the role of central banks and financial regulators?*

Key Findings

- *“Trying to see through a glass, darkly”*
- *“Brave New World”*
- *“Walking a tightrope to net zero”*

Closing information gaps, improving disclosure, promoting standards

- *DATA GAPS*
- *CLIMATE-RELATED DISCLOSURES*
- *STANDARDS*

Climate risk analysis: the state of the art

- Well-established risk management tools in the financial industry (e.g. Value-at-Risk models and stress tests) cannot be used off-the-shelf to measure climate-related risks
- Exploratory scenario-based impact assessments have to be used instead

Climate risk analysis: the state of the art

Specificities of climate scenarios

	Standard scenarios
Horizon	Short to medium run
Scenario drivers	Economic and financial
Shock values	Guidance from historical data
Aggregation	National
Feedback loops	Work in progress (e.g. macro models with financial frictions)

Climate risk analysis: the state of the art

ISSUES

- *Model risk*
- *Time horizon*
- *Poor basis for policy action*
- *Not necessarily risks to financial stability*

Climate risk analysis: the state of the art

ADVANTAGES, nonetheless

- *Sizing risks **vs** testing firms' capital adequacy / setting capital requirements*
- *Raising awareness*
- *Providing incentives*
- *Strengthen supervisory frameworks*

Should Financial Policy and Regulation Promote Low-Carbon Transition?

- *PROPOSALS (in the literature)*
  - *exposure or concentration limits*
  - *designation of systemically important financial institutions (SIFIs)*
  - *adjusting risk weights*

Should Financial Policy and Regulation Promote Low-Carbon Transition?

- *…BUT*
  - *how to distinguish ‘green’ from ‘brown’ assets*
  - *‘greenness’ is not necessarily equivalent to low risk*
  - *using regulatory tools to promote climate transition would complicate the conduct of policy*
  - *…and, based on the available evidence, it is unlikely to be effective*

Should Financial Policy and Regulation Promote Low-Carbon Transition?

- The GSF has a <u>very limited impact</u> on the conditions for financing green projects…

FIGURE 1: IMPACT OF THE GSF ON ANNUAL LOAN RATES IN PERCENTAGE POINTS

SCENARIO	Low GSF at 0.85 (15% reduction in prudential requirements)	Moderate GSF at 0.75 (25% reduction in prudential requirements)	High GSF at 0.5 (50% reduction in prudential requirements)
INITIAL ANNUAL LOAN RATE	4,41%[2]	4,41%	4,41%
ANNUAL LOAN RATE WITH GSF	4,28%	4,19%	3,97%
PERCENTAGE POINT CHANGE IN ANNUAL RATE	0,13PTS	0,22PTS	0,44PTS

@I4CE_

Chamberlin, B. and J. Evain (2021), Indexing Capital Requirements on Climate: What Impacts Can Be Expected?, September 2021

Should Financial Policy and Regulation Promote Low-Carbon Transition?

- … while for the penalizing factor (PF) to have a significant impact on the cost of a project, its calibration must be (very) high …

FIGURE 2: IMPACT OF THE PF ON ANNUAL LOAN RATES IN PERCENTAGE POINTS

SCENARIO	Scenario Low PF at 1.1	Moderate PF at 1.25	Very high PF at 3.5
INITIAL ANNUAL LOAN RATE	4.41%	4.41%	4.41%
ANNUAL LOAN RATE WITH PF	4.50%	4.63%	6.62%
PERCENTAGE POINT CHANGE IN ANNUAL RATE	+0.09PTS	+0.22PTS	+2.2PTS

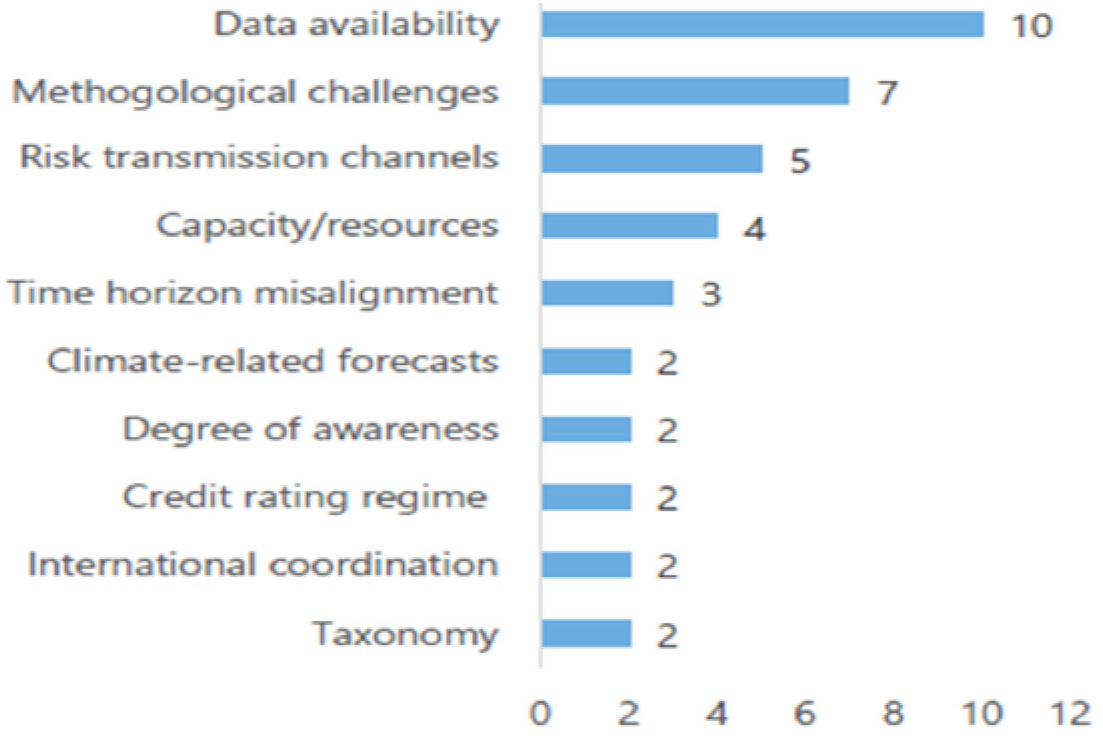
@I4CE_

… but a high PF affects the capital of banks, which might respond by rationing credit

Chamberlin, B. and J. Evain (2021), Indexing Capital Requirements on Climate: What Impacts Can Be Expected?, September 2021

Should Financial Policy and Regulation Promote Low-Carbon Transition?

Figure 4. Key Challenges in Incorporating Climate-Related Risks in the Supervisory Process
(responses by jurisdictions)



Source: BCBS (2020).

Should Financial Policy and Regulation Promote Low-Carbon Transition?

- *Does a more 'green-promoting' role require a change in central banks and financial regulators' mandates?*
- *It would raise major governance and operational challenges while having most probably a limited real-world impact → would it stand up under a cost-benefit analysis?*

Walking a tightrope to net zero

- *The road towards a low-carbon economy is going to be bumpy*
- *In this complex environment, central banks and financial regulators have to tread a fine line*

Walking a tightrope to net zero

- *Financial policy and regulation cannot deliver the transition to a low-carbon economy by itself*
- *Markets need a "critical signal for re-directing private investment and innovation to clean technologies, and to incentivize energy efficiency" (Georgieva 2021)*

Walking a tightrope to net zero

- *For central banks and financial regulators …*
  - *A role to play in the transition to a low-carbon economy…*
  - *… but without overestimating their abilities or their toolkit, overstepping their mandate, or disregarding the possible unintended consequences of their actions*
  - *Always acting in concert with government climate policies …*
  - *… and avoiding to find themselves (again) in the role of 'the only game in town'*

Walking a tightrope to net zero

“Mission critical” …

or

… “Mission vigilant” ?

The Economist

Menu | Weekly edition | Search

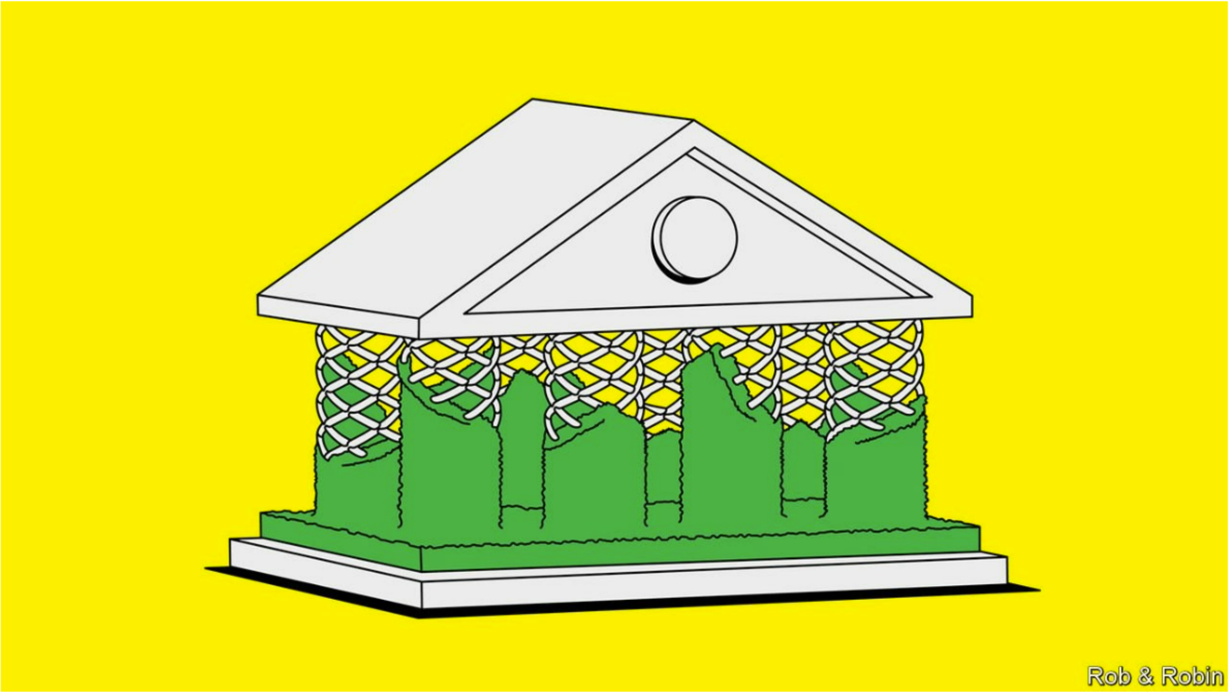
Special report

Apr 23rd 2022 edition ›

Environmental concerns

The wish to respond to climate change

How green can central banking get?



Dimitri Demekas, Pierpaolo Grippa

‘Walking a Tightrope: Financial Regulation, Climate Change, and the Transition to a Low-Carbon Economy’

Journal of Financial Regulation, Volume 8, Issue 2, September 2022

https://academic.oup.com/jfr/article/8/2/203/6674753

THANKS!