



BANK OF ENGLAND

23 November 2020



Climate Change Stress Testing, a view from the UK

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Outline

- i. The Bank of England's response to Climate Change
- ii. Stress testing and scenario analysis
 - Supervisory Statement 3/19
 - Insurance Stress Test 2019
 - Biennial Exploratory Scenario on the financial risks from climate change



The Bank's response to Climate Change: governance, risk management and disclosure initiatives

Role of the Bank of England

- As the central bank of the United Kingdom, the Bank of England is responsible for maintaining **monetary and financial stability**. This also includes the supervision and regulation of **banks, insurers, and financial market infrastructure**.
- Climate change creates **financial risks** to the UK economy and financial system.
- Our goal is to build a UK financial system that is **resilient** to the risks from climate change.

Climate-related supervisory practices: SS3/19

April 2019

**Supervisory
Statement**

- Supervisory Statement sets out PRA's expectations in four areas:

Area	Expectations
Governance	Board scrutiny and accountability; SMF responsibilities
Risk management	Development of new tools and measures within existing risk management frameworks
Scenario analysis	A key tool to inform risk and strategic planning
Disclosure	Transparency of financial risks (TCFD framework)

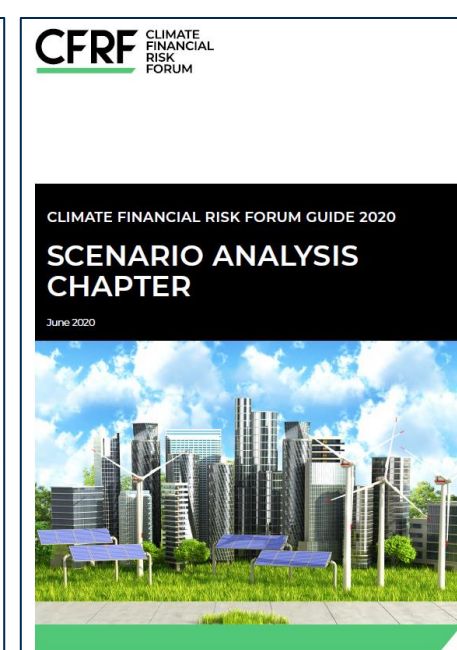
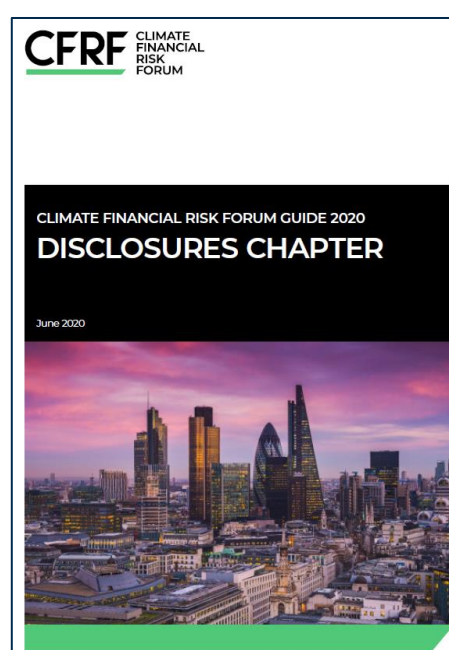
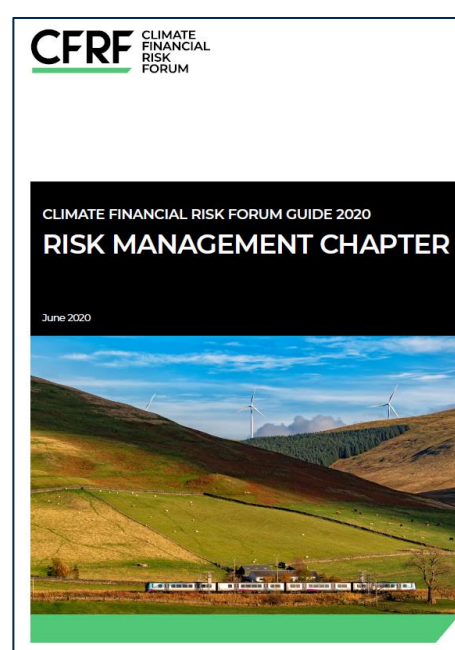
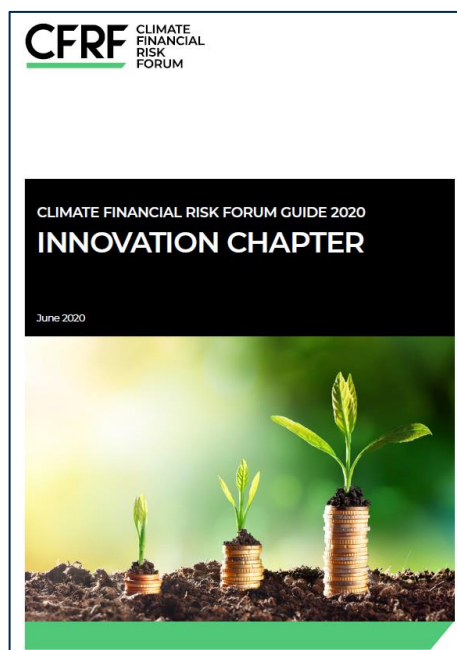
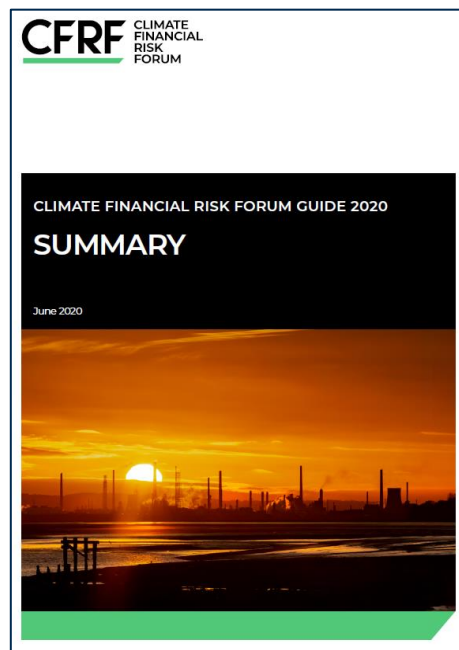
Climate-related supervisory practices: CFRF Guide (29 June)



- **Climate Financial Risk Forum (CFRF)** – industry group co-chaired by PRA and FCA
- Aims to build capacity and share best practice across financial system
- Members include banks, insurers, asset managers, stock exchange
- Working groups on: risk management; scenario analysis; disclosure; and innovation
- Published guide with practical tools, knowledge and case studies.

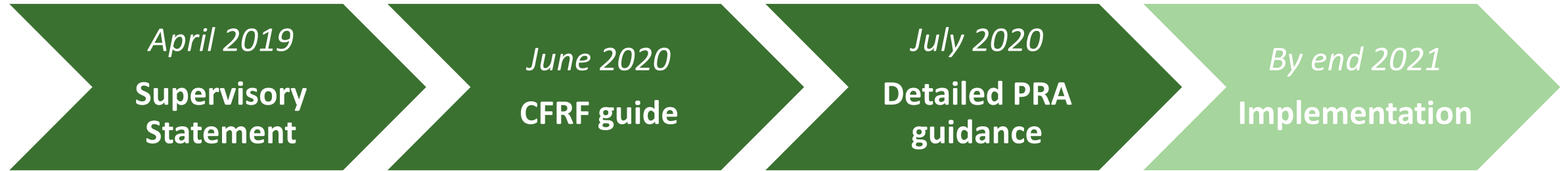


Climate-related supervisory practices: CFRF Guide (29 June)



- Guide summary
- Risk Management chapter
 - Risk Management Annex: list of data and tools providers
- Scenario Analysis chapter
- Disclosures chapter
- Innovation chapter
- Webinar and remarks from Andrew Bailey and Chris Woolard

Climate-related supervisory practices: Dear CEO letter



- Follow up guidance to supervisory statement
- Published in July 2020 as a letter to firms:
 - Governance, Risk Management, Scenario Analysis, Disclosure
- Firms have been given until end-2021 to “fully embed” these expectations.



Stress testing and scenario analysis

SS3/19 – Scenario Analysis

- The PRA expects a firm's scenario analysis to address a range of outcomes relating to different transition paths including, where appropriate, include a:
 - short-term assessment: exposure to the financial risks from climate change within its existing business planning horizon, including, where appropriate, the quantification of these risks; and
 - longer term assessment: exposure based on its current business model, of a range of different climate-related scenarios
- PRA considers the ORSA for insurers, and the ICAAP for banks, to be useful frameworks within which to consider the financial risks from climate change.

Insurance Stress Test (IST) 2019

The IST used three scenarios:

Scenario A:

- A sudden transition (a Minsky moment) ensuing from rapid global action and policies
- Materialising over the medium-term
- Temperature increase being kept below 2°C but only following a **disorderly transition**.

Scenario B:

- Long-term **orderly** transition (broadly in line with the Paris Agreement)
- Maximum temperature increase being kept well below 2°C
- Economy transitioning to achieve carbon neutrality by 2050 .

Scenario C:

- Failed future improvements in climate policy
- Temperature increase in excess of 4°C by 2100
- No transition and a continuation of current policy trends.

IST 2019: Outline of Climate Change scenario coverage

Scenario coverage	Life insurers		General insurers	
	Investments	Liabilities	Investments	Liabilities
Physical Risk	Scenario A Scenario B Scenario C		Scenario A Scenario B Scenario C	Scenario A Scenario B Scenario C
Transition risk	Scenario A Scenario B Scenario C		Scenario A Scenario B Scenario C	

Climate Stress test: lessons learnt from the IST 2019

For firms:



Climate risk management not yet embedded



Significant gaps in data, tools and expertise



Current model designs constrain scenario outcomes

For PRA:



Top-down design choices overly influence results



Granular results improve comparability



Benefit of having a second round of submissions

2021 Climate Biennial Exploratory Scenario (BES): Objectives

The Climate BES has three objectives:

- 1) Size exposures** of individual firms and financial system
To shine a light on risks that are currently opaque
- 2) Understand business model challenges** and likely responses
To highlight where action is needed
- 3) Improve firms' risk management** and prompt a strategic view
To build capability and prompt customer engagement

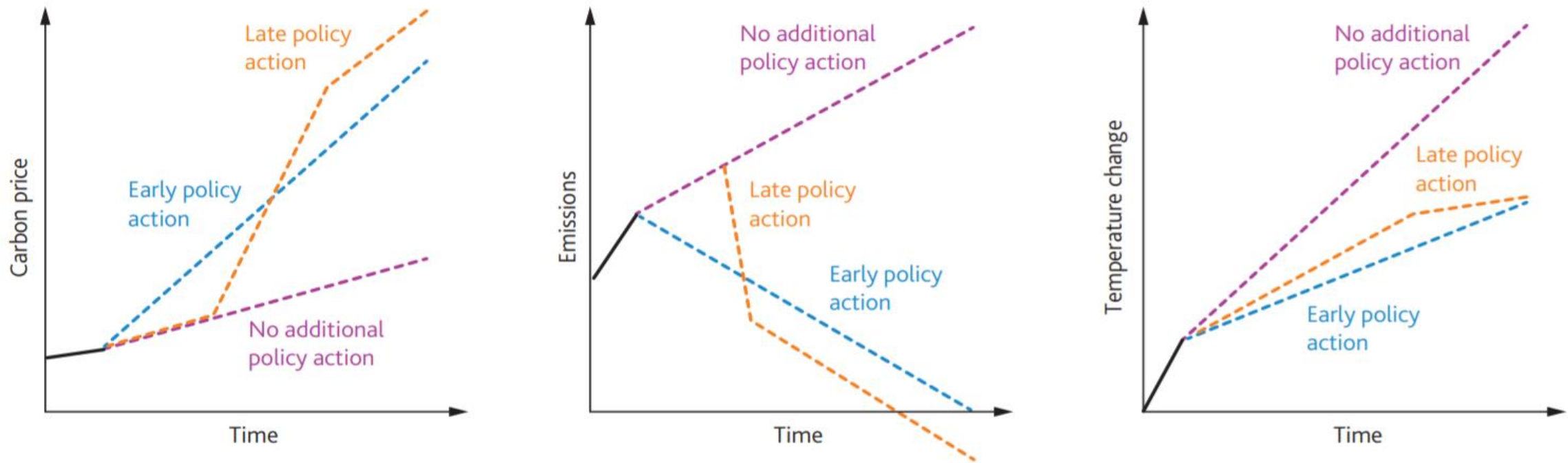
The Climate BES is not about capital adequacy

BES approach

- **Broader participation:** the BES will test the resilience of both the UK's largest banks and insurers to climate-related risks.
- **Extended modelling horizon:** the BES will use a 30-year modelling horizon because need a much longer timeframe than normal.
- **Integrated climate and macrofinancial variables:** pathways for temperature, emissions, and climate policies provided.
- **Counterparty-level modelling expectations:** assess the vulnerability of individual counterparties' business models to the underlying climate-related risks.

Climate Stress test: BES 2021

BES will test resilience to physical and transition risks in three scenarios



These will build on the NGFS reference [scenarios](#), released in June 2020.

Conclusion

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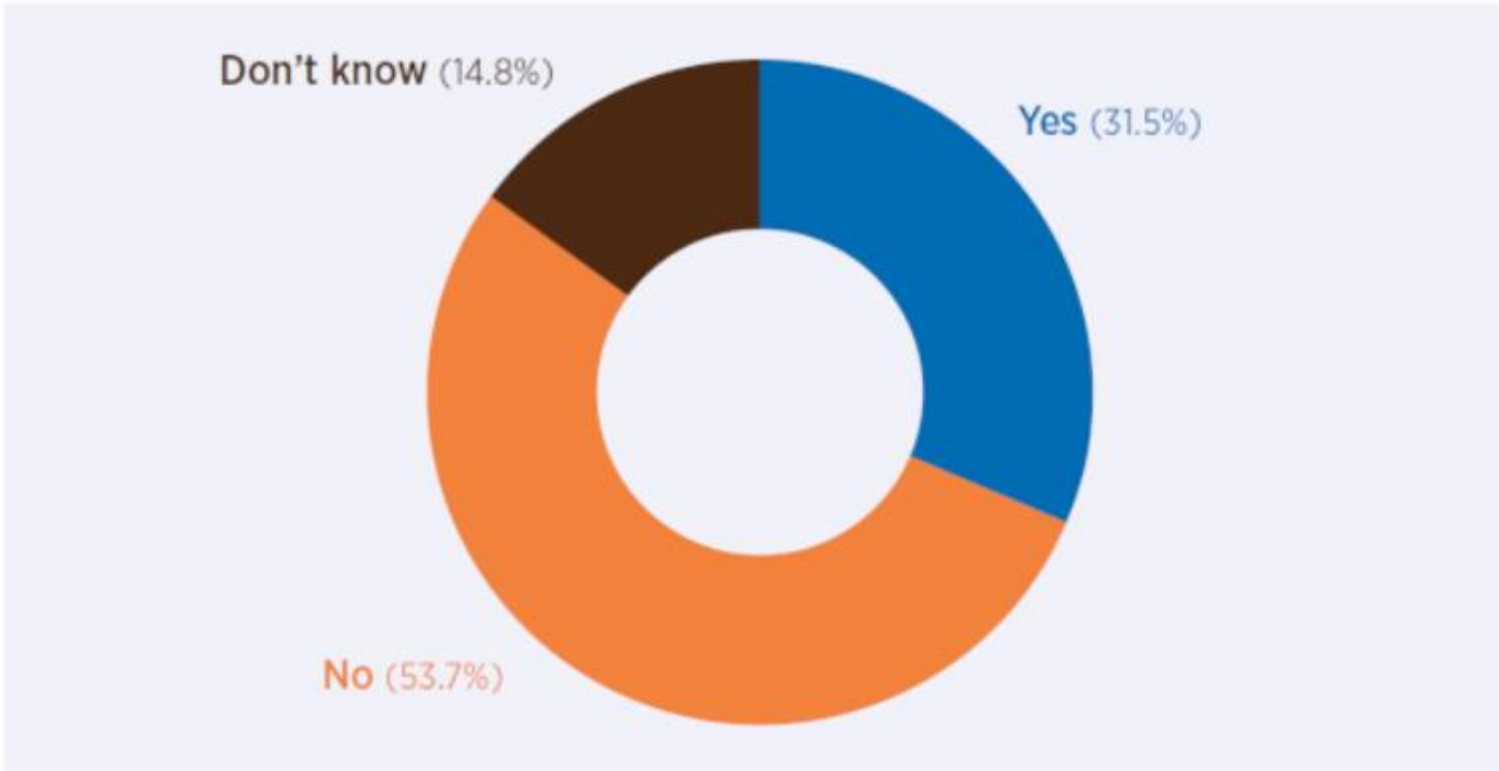


- Climate change presents financial risks relevant to the PRA's objectives. This is recognised by most firms.
- The risks are far-reaching, foreseeable and for action today.
- Supervisory expectations clarified.
- Progression from IST 2019 to BES 2021

More regulation to accelerate the (much needed) change?

Figure 1: Do you think financial regulation in its current form goes far enough when it comes to climate risk?

Source: Insurance Asset Risk



<https://www.insuranceassetrisk.com/content/analysis/regulators-have-the-sustainability-power.html>



Questions?
