

# Bank of England

Lord Bridges of Headley MBE  
Chair of the Economic Affairs Committee  
House of Lords  
London  
SW1A 0PW

**Sarah Breeden**  
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Financial Stability Strategy & Risk  
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Dear Lord Bridges,

It was a pleasure to speak with the Committee on 17 May 2022 as part of its inquiry into 'UK energy supply and investment'.

During the hearing I was asked for my view on which gaps in UK climate policy would it be most beneficial to address in order for the financial system effectively to support the transition to a net-zero economy. I committed to write to you on this point.

It is important to stress that determining the UK's climate policy is rightly a matter for Government and Parliament, not the central bank or financial regulators. Climate policy has consequences far beyond the financial sector, bringing with it social, political, and economic considerations.

The Bank of England's main contribution to the transition is to ensure the financial system is resilient to the financial risks from climate change.<sup>1</sup> In addition, our work can help inform Government as it develops climate policy, drawing on our engagement with

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<sup>1</sup> In my speech '[Balancing on the net-zero tightrope](#)' to TheCityUK International Conference on 7 April 2022, I described the role of the Bank of England in the transition to a net-zero economy and the intended and unintended consequences that climate policy choices can bring.



the financial sector and analysis in specific areas such as climate scenarios and macroeconomic impacts.

Climate policy will ultimately be delivered through a combination of Government action, regulations and legislation. Some of these may be specific to certain sectors and activities, whereas others could be applied on a more economy-wide basis. Examples of sector or activity based policies would include the shift to renewable energy, electric vehicles, and energy efficient properties. Examples of economy-wide measures might include carbon pricing.

As I said during the hearing, regardless of which particular set of climate policies Government chooses to adopt, the impact on the financial sector's ability to support the transition will be greatest where there is clarity and sufficient detail over the future path of policy. This will enable households and businesses to plan for the transition and for them to allocate any necessary investment more efficiently. The financial sector will also be better placed to pull forward these policy impacts and support their customers through the transition, helping to smooth the adjustment in the real economy. This is of course not just a challenge for the UK Government: all Governments around the world need to provide more clarity and detail over the future path of policy for the transition to be effective.

That is not to say the choice of policy does not matter. Policy measures that drive economy-wide changes could be the most effective in delivering the scale of change needed. In particular, implementing a carbon price that internalises the cost of greenhouse gas emissions can result in a more efficient transformation across the entire economy and financial system. This is being increasingly recognised internationally, for example, the October 2020 report from the Group of Thirty (G30) states that "meaningful carbon prices are a cornerstone of any effective policy package".<sup>2</sup>

Putting an explicit price on emissions can come in several forms, such as emissions trading schemes or a carbon tax. Other regulations can also have the effect of increasing the implicit cost of emissions-intensive activity, leading to a 'shadow carbon price'. There is a wide variety of views on how carbon pricing policies should be designed and implemented and some concern that they may be miscalibrated given the inevitable uncertainties about technological change etc.<sup>3</sup> These are complex questions

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<sup>2</sup> See '[Mainstreaming the Transition to a Net-Zero Economy](#)', October 2020

<sup>3</sup> Some have proposed a model where an independent entity controls the issuance of emission permits to set carbon prices at an optimal level, allowing for a quick response to changes in technology and transition pathways. See '[Efficient, Effective and Fair - Discussion Paper](#)', Academy of the Social Sciences in Australia, June 2020

as each policy choice brings its own benefits and risks, including carbon leakage and distributional impacts.<sup>4</sup> Furthermore, the way any revenues generated from policies are used will also have a bearing on macroeconomic outcomes.<sup>5</sup> For our part, we will continue to work with HM Treasury and international partners to explore the potential macroeconomic effects of different policy tools, including carbon pricing.<sup>6</sup>

The results of our **Climate Biennial Exploratory Scenario (CBES) exercise**, which we published on 24 May 2022, can help illustrate those sectors of the economy where clarity on climate policy would have greatest impact. As we discussed, the exercise was designed to assess the resilience of major UK banks, insurers and the financial system to three different climate scenarios. First, an ‘early action’ scenario where climate policies are implemented in a timely manner to deliver an orderly transition to net-zero by 2050. Second, a ‘late action’ scenario where climate policies are only implemented at a late stage over a short horizon and in greater magnitude delivering a disorderly transition to net-zero by 2050. Third and finally, a ‘no additional action’ scenario where no further climate policies are introduced leading to rising emissions and global average temperatures. We found that the early action scenario resulted in the lowest costs and the greatest opportunities for the financial sector overall.

In assessing firms’ exposures to climate risks, the CBES exercise found that at a corporate sectoral level the industries with the highest projected bank loss rates in the ‘early action’ and ‘late action’ scenarios were mining (including extraction of petroleum and natural gas); manufacturing; transport; and wholesale & retail trade. Insurers projected material losses on corporate bonds and equities in similar sectors, with assets in the mining of gas and oil sector suffering by far the largest losses. These sectoral results were in line with expectations, given the carbon intensity of these industries’ supply chains. The exercise also highlighted that the aggregate costs of retrofitting to improve the Energy Performance Certificate (EPC) ratings of UK residential properties with mortgages from the participating banks could be £75bn.<sup>7</sup>

We are engaging in discussions on the results of the CBES exercise and their potential implications, including scenarios under which provision of financial services may be

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<sup>4</sup> ‘Carbon leakage’ refers to the situation that may occur if costs related to climate policies drove businesses to transfer production to other countries with more lax emission constraints.

<sup>5</sup> For example, see Jondeau, Eric and Levieuge, Gregory and Sahuc, Jean-Guillaume and Vermandel, Gauthier, **‘Environmental subsidies to migrate transition risk’**, 25 May 2022.

<sup>6</sup> As an example of international collaboration on these issues, see the statements on carbon pricing and macroeconomic analysis in the **G7 Finance Ministers and Central Bank Governors’ Petersberg Communiqué** and the mandate of the Network for Greening the Financial System (NGFS) **Monetary Policy workstream**

<sup>7</sup> Estimated cost based on CBES participating firms’ data on total mortgage balances for each current and potential EPC rating combination, and an estimated average retrofitting cost for each combination. Given the sensitivity to assumptions and data gaps, others have come up with different estimates, for example **analysis from BEIS** in 2019 found the cost of improving UK residential properties to EPC band C in the range of £35 – £65bn.

affected for certain households and businesses, with a range of Government departments and other regulators. We are also comparing the results of our exercise with international peers and sharing lessons learned.

I hope this is helpful in answering your question and illustrates the contribution the Bank is making to this debate. The Bank has made its work on climate change a strategic priority, recognising the impact it has to its mission to promote the good of the people of the UK by maintaining monetary and financial stability. We will continue to work closely with Government and Parliament as climate policy evolves to understand the impact on the economy and financial system. I look forward to future discussions with the Committee on this important topic.

Yours sincerely,

A handwritten signature in black ink, appearing to read "Sarah Breeden". The signature is written in a cursive, flowing style.

Sarah Breeden  
Executive Director