The state of research on greening the financial system: Key themes from the 2nd Annual INSPIRE Workshop

Simon Dikau and Nick Robins[1]

The 2020 INSPIRE Festival brought together 27 INSPIRE research teams with experts from NGFS member institutions to present and discuss latest research findings linking central banks, supervisors and sustainable finance. The Festival focused on the implications of climate change and other environmental challenges for central banks and supervisors, with an emphasis on the recovery from COVID. The Festival's aim was to strengthen the dialogue and relationship between the research community and the NGFS and its members. As a research stakeholder of the NGFS, INSPIRE is delighted to see that the NGFS has established a new workstream on research as part of its 2020-2022 strategy.

Over the four days of the Festival, there were seven thematic sessions and a final outlook discussion, with 40-50 participants in each session. Overall, the Festival was attended by around 170 unique participants, over 100 of whom were from central banks and supervisors. From the research presentations and the rich discussions, we gathered the following key themes.

1. Still early days: evidence-based insights and new conceptual frameworks are crucial

The rapid growth in central bank commitment to action to respond to climate change and other environmental threats is striking. But many institutional and policy responses to climate change and related risks are still at an early stage of development. Acknowledging and assessing the implications of climate change for the core monetary and financial stability mandates is an important first step. Here, research provided by INSPIRE and others can help provide evidence-based insights on how to measure and respond to risk and how to calibrate existing financial policy tools. In addition, research can aid the development of new conceptual frameworks needed to respond to challenges that cannot easily be managed within existing regulatory and central banking approaches. The intellectual task is to build a new academic norm where the linkages between sustainability and financial regulation becomes second nature.

2. Making decisions under conditions of urgency, uncertainty & imperfect information

The urgency of the climate and environmental crisis is now widely recognised by central banks and supervisors. Action needs to be commensurate with this, with decisions taken against a backdrop of fundamental uncertainty about the future and deeply imperfect information. The Festival

[1] Simon Dikau is manager of the INSPIRE network and a post-doctoral researcher at the London School of Economics; Nick Robins is co-chair of INSPIRE and professor in practice for sustainable finance at the London School of Economics.

highlighted the relatively risk-averse nature of regulatory decision-making and the value of an iterative approach that builds experience and confidence. This is important as not acting is also a choice: delay accentuates the risks of climate change and environmental degradation. Extending the time horizon is critically important to deliver long-term supervision. One productive approach could be to focus more on the medium term, extending the horizon from the immediate future to focus on the next 5 to 15 years, while developing greater understanding of the long-term pathways to 2050 and beyond.

The suite of decision-making principles used by central banks could also be broadened to take account of uncertainty. For example, the application of the precautionary principle, a longstanding approach in environmental policies, can help guide decision-making to take preventive action now that avoids catastrophic damage in the future.

3. Approaching a tipping point? COVID-19 and a sustainable crisis response

COVID-19 has intensified the urgency of responding to environmental risks and produced a growing consensus in favour of a green recovery. Increasingly, the pandemic is understood as a natural disaster, with zoonotic diseases such as coronaviruses being spread by environmental degradation, not least loss of biodiversity and climate change. In addition, the economic shock of COVID-19 has accelerated critical trends such as digitisation as well as bringing forward the energy transition, notably for oil and gas. Central banks and financial supervisors have responded assertively to the crisis and have employed a broad range of tools to support the real economy; they have also joined the call for financial action to drive a green recovery. Analysis provided by the INSPIRE Toolbox of Sustainable Crisis Response Measures shows, however, that only few central bank COVID-19 actions have yet incorporated environmental and climate change factors. As the crisis moves from stabilisation to recovery, the next year could be a tipping point for central banks and supervisors, with greater focus on measures influencing capital treatment in both prudential and monetary policies.

4. Deepening environmental risk analysis; adjusting risk weights

Better understanding how environmental risks – physical and transition – impact on both institutions and financial systems is at the heart of the current phase of central bank action, not least through the NGFS. So far, action is limited to a relatively small number of authorities and a critical priority is to broaden the range of actionable research on how best to conduct environmental risk analysis (ERA) for micro- and macro-prudential purposes.[2] Beyond this, the Festival also addressed how this analysis can be translated into prudential action in terms of adjusting risk weights and capital requirements. Barriers remain, including a risk culture focused on extrapolating past performance as well as an absence of agreed taxonomies.

One way forward is for financial authorities to support private sector measures to adjust their internal risk weights according to environmental factors (keeping the overall portfolio risk neutral). Other approaches are available, including incorporating environmental risk into broader licensing of financial institutions, as well as governance expectations of senior management.

5. Enabling prudential action: data, disclosure, taxonomies and scenarios

To move forward, we need reliable data credibly disclosed using common definitions that are then used in realistic projections of future risks that drive decisions today. The importance of data is underscored by the NGFS setting up a new dedicated workstream on this theme. Big Data, artificial

[2] See the latest NGFS publication on ERA for financial institutions: https://www.ngfs.net/en/overview-environmental-risk-analysis-financial-institutions

intelligence and satellite information can certainly help to complement existing sources of information, but these are unlikely to provide a 'silver bullet'. In addition, a broader set of data points is needed beyond simple emission metrics to understand risk effectively.

Turning to disclosure, INSPIRE research presented at the Festival revealed the importance of mandatory environmental reporting to generate the information base to effectively assess default probabilities (for example for mortgages). Clearly, progress is being made with the adoption of the TCFD, but comprehensive reporting is still rare. A priority for supervisors is to ensure effective disclosure regulated financial institutions, notably banks, insurers, investment institutions and capital market intermediaries (such as exchanges and rating agencies). Taxonomies both of green assets as well as 'high-exposure' assets emerged as vital stepping-stones for the calibration of prudential and other instruments. The challenge is now a proliferation of taxonomies, which can be used as an excuse for inaction.

Finally, scenarios are crucial to allow central banks and supervisors to understand the implications of different future states of the world economy and the financial system – recognising the limits of forecasting and models. During the discussion, it was suggested that it is important to ensure that the market preference for a single, generally mild scenario is avoided. And while an orderly transition is a key goal, a disorderly transition needs to be prepared for.

6. Monetary policy: impacts on inflation and interest rates; calibrating monetary operations

How to green monetary policy is a relatively new but fast-moving question on the central bank agenda[3]. A starting point is to investigate the core macroeconomic linkages between the physical impacts and transitional implications of climate change on long-run inflation and interest rates. Research presented suggested that climate change could compromise the ability of central banks to achieve and maintain price stability, as well as constraining their policy space. Furthermore, different transition scenarios will also have implications for prices and monetary policy, both in orderly and delayed versions.

Alongside this, a range of options were presented for adjusting monetary operations to account for climate factors. At present, an unintended carbon bias often exists in monetary operations, especially in corporate asset purchase programmes (APPs). This points to the need to reflect on how to update the market neutrality principle to account for climate risks (particularly where pervasive market failures exist). Ideas for how APPs and collateral frameworks could be adjusted to remove the carbon bias and account for climate risk were also presented and discussed. As a next step, central banks could help to minimise the dissonance between monetary operations and climate action by signalling that climate factors will be taken into account, with definitions, specifications and technical details to be resolved over time.

COVID-19 has also underscored the importance of coordinating the environmental dimensions of monetary and fiscal policies, particularly in terms of delivering a sustainable recovery. Questions of how fiscal policy affects monetary policy and vice versa, as well as approaches where they would complement each other are important topics to be explored. Monetary policy will be the topic of the next and fourth INSPIRE call for proposals.

7. Understanding the political economy of action by central banks and supervisors

[3] See NGFS publications on research priorities (https://www.ngfs.net/en/macroeconomic-and-financial-stability-impacts-climate-change-research-priorities) and monetary policy (https://www.ngfs.net/en/climate-change-and-monetary-policy-initial-takeaways).

Governments are in charge of setting environmental policy and tackling climate change – and are key institutions for ensuring national policy coherence between central bank actions and climate/sustainability goals. As indicated by the NGFS, the existing mandates of central banks and supervisors provide sufficient scope for addressing the strategic consequences of climate change and related risks for their core responsibilities of safeguarding monetary and financial stability. Even in the absence of strong environmental policy frameworks, there are a number of important examples where regulatory authorities have nevertheless made important steps forward with environmental and climate risk. In these circumstances, rigorous analytical foundations are particularly important and further analysis could be useful to show how regulatory authorities can take action within their mandates on climate and environmental risks where political support may be absent.

8. Emerging markets: challenges and ways forward for central banks and supervisors

Many emerging and developing countries are particularly vulnerable and exposed to risks from climate change and environmental degradation, causing additional challenges for national central banks and supervisors. Central banks and supervisors in emerging Asia and Latin America have been at the forefront of policy action – both with regard to prudential as well as monetary policy. The design of environmental and climate risk-related policy often requires a significant level of in-house research capacity to translate climate science and economic modelling in policy action. However, financial policy institutions in emerging and especially developing economies can be held back by deep-seated capacity constraints. For example, environmental risk analysis, which has been led by advanced economy central banks, has had a strong focus on climate change, while risks stemming from environmental degradation and biodiversity loss that are significant in many developing and emerging economies where research capacity is limited have received less attention. This provides a strong argument in favour of exploring further capacity-building efforts, to which INSPIRE could also contribute

9. Beyond climate: broader environmental and social considerations

Apart from climate change, there are broader environmental and social factors that have implications for the operations of central banks and supervisors. It is not just the Paris Agreement but the Sustainable Development Goals that are relevant. In addition, the social dimension of environmental threats is also rising up the agenda. Especially in the emerging market context, the social aspect of central banking and supervisory policy tends to play a more central role. Questions concerning a 'just transition' are not just relevant for governments, but potentially also for central banks, linking climate with employment issues. In this context, it is important to explore how a sustainable economy can also be an inclusive economy in which groups that are particularly exposed to climate change, environmental degradation and the implications of a sustainable transition are taken into account.

COVID-19 has also exposed the central importance of nature and biodiversity for resilience. Along with the efforts to mitigate and adapt to climate change, environmental degradation and the related challenges stemming from biodiversity loss pose significant financial risks. Further research is needed on how central banks and supervisors can respond, broadening the scope of environmental risk assessment, for example.

10. Central bank portfolios and sovereign bonds: a systemic asset class

Central banks are committing to 'walk the talk' by applying ESG criteria to their own portfolios. Sovereign bonds play a central role in these portfolios as well as being a systemic asset class across financial markets, not least in terms of setting prices. Furthermore, sovereign bonds play a key role in fiscal-monetary linkages, pointing to an important role for central banks as purchasers of sovereign green bonds as well as managers of sovereign risk.

Although sovereign bonds are traditionally zero risk weighted, research presented at the Festival showed how climate factors are differentially affecting sovereign bonds, with vulnerable developing countries particularly affected. There is, however, a mismatch between the horizon of credit ratings and the timeframe over which climate change risks can be expected to manifest, presenting a challenge for the ways that central banks and other investors manage these portfolios. Other indicators that can improve the assessment of sovereign risk and bonds, such as countries' SDG performance, also have to be considered. Efforts to identify the impact of climate change and transition factors on sovereign risk could be enhanced by a TCFD-style disclosure framework for sovereign issuers.

11. Effectiveness: Moving from 'why' to 'what impact'

Assessing the effectiveness and impact of different regulatory responses is emerging as a critical cross-cutting theme and was the focus of the most recent INSPIRE call for research proposals. With central banks and supervisors accepting the implications under their core mandates and case for action, it is increasingly important to now understand the impact of different measures to green the financial system in both economic and environmental terms. This raises questions of the relative effectiveness, efficiency and equity of different central bank and supervisory instruments in highly dynamic situations where there is no 'ceteris paribus' control scenario.

12. Exploring the behavioural dimension of central bank action

Better understanding the financial culture of central banks and supervisors emerged as a new theme for further research on how they can best respond to climate and sustainability challenges. Topics that were suggested included the internal incentives (and disincentives) for action on climate and sustainability factors; how dealing with climate and sustainability factors fits with existing norms of behaviour, and how new norms are created; and how to bring the high-level agenda around greening the financial system closer to individual supervisors and policy makers.

Next Steps:

The Festival was an opportunity to present INSPIRE research projects at various stages of development and share this with a wide spectrum of central bank and supervisory practitioners. In the coming months, INSPIRE will:

- Issue its fourth call for research proposals focused on monetary policy;
- Release a second edition of its Sustainable Crisis Response Toolbox;
- Publish a number of papers from completed research projects;
- Continue to liaise closely with the NGFS, particularly its new research workstream; and
- Prepare its strategy for deepening its impact in 2021, particularly in the run-up to COP26.