BANK OF ENGLAND

Speech

The shared response to climate change: turning momentum into action

Speech given by

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Based on remarks made on 19 March 2018 following the second formal meeting of the Green Finance Initiative and Green Finance Committee, London

Published 14 May 2018

Introduction

Thank you for the opportunity to explain what might otherwise not be obvious – why the Bank of England has an interest in climate change. In addition to outlining our interests, I shall stress how this is a shared challenge – where the private sector and the financial authorities need to work together, respecting our different mandates, if we are to rise to the challenge ahead. And in doing so I will pay tribute to the work you have done here in the China-UK Green Finance Taskforce. Turning momentum into action is imperative. The practical work you are doing in the Taskforce is key to making a real difference.

Climate change, financial risk and the Bank of England's objectives

Climate change, and society's response to it, presents financial risks which impact the Bank's objectives. Those risks arise principally on two dimensions: the physical effects of climate change (for example from more frequent or intense storms); and the impact of changes as we transition to the lower-carbon economy that is consistent with the commitments made by governments in Paris two years ago.

Those risks have the potential to affect the Bank's core responsibilities both for the safety and soundness of the firms we regulate and for the stability of the financial system if there is a late, abrupt and disorderly transition. In particular, risks to financial stability will be minimised if the transition begins early and follows a predictable path. Once climate change becomes a clear and present danger, it may already be too late. As outlined in the PRA's 2015 insurance report, and in our 2017 Quarterly Bulletin article on the Bank's response to climate change[1], there is evidence to suggest climate change is already having an impact.

In looking at physical risks for example, on a global basis, weather related insured losses have increased from an average of around US$10 billion per annum in the 1980s to an average of around US$45 billion per annum so far this decade. And for specific weather events, there are indications that climate change is becoming a significant contributing factor. For example, Lloyd's of London has estimated that the 20cm of sea-level rise that has been seen since the 1950s at the Battery in New York increased Superstorm Sandy's (2012) losses by 30%.

In terms of transition risk, there are already examples of how disruptive changes, linked to policy, technology and other economic factors, cause sharp changes in valuations. As of June last year, the combined market capitalisation of the top four US coal producers had fallen by 95% since the end of 2010, and three of the top five US firms had filed for bankruptcy. There has also been a similar, albeit less severe, valuation shift for German utilities which have been seen as slow in responding to changes in domestic energy policy designed to shift towards renewables.

[1] PRA (2015), *The Impact of Climate Change on the UK Insurance Sector,* https://www.bankofengland.co.uk/prudential-regulation/publication/2015/the-impact-of-climate-change-on-the-uk-insurance-sector and Scott, M., Van Huizen, J. & Jung, C. *The Bank of England's response to climate change*. 98–109 (Bank of England, 2017).

The financial risks from climate change are clearly therefore already with us. But more significantly, these risks, both from physical and transition channels, will increase if global temperatures continue to rise or the re-allocation of capital implied by the transition to a 'well below 2C' world becomes more significant. I will refrain from spending too much of my time outlining the scale of the challenge given the number of reports published that have highlighted the issue. But the main messages in all of these reports is that if we are to make our climate goals a reality, significant amounts of equity, bank loan, and bond financing will need to become 'green'. These forecasts also highlight that much of the financing needed to support investment in infrastructure that supports environmentally sustainable growth is likely to be generated not in advanced economies but in emerging economies such as China.

The Bank's response

So, how, as a central bank, are we responding to the financial risks which climate change presents? Viewed through the prism of our objectives, the Bank's response has two core elements.

The first relates to our micro-prudential objectives to promote the safety and soundness of the financial institutions for which we are responsible – banks and insurance firms - and involves our engaging with these firms on climate-related risks through prudential supervision.

Our work initially started by examining the impact of climate change on the UK insurance industry. General insurers in particular are at the front line of managing the physical risks from climate change, such as those from storms and floods. The impact of these physical risks was the focus of the report the PRA published in 2015, alongside the Governor's speech at Lloyd's of London[2]. We continue to deepen our activities in insurance - including in ensuring that the thinking that underpins the understanding of climate risk on the liability side of insurers' balance sheets is reflected also in thinking about the transition risks that might arise on the asset side of those balance sheets, something which we expect to share more of over the course of this year.

Our prudential work has also broadened to consider the impact of climate-related risks to the UK banking sector. We have now completed our initial engagement with the industry and are synthesising our findings. We expect to publish these later this year.

From our prudential work, it is clear that consideration of the financial risks from climate change has significantly evolved over the last few years. There is a transition in thinking underway as climate is increasingly seen as a core strategic risk issue, rather than a matter solely for those managing firms' 'corporate responsibility' strategies. As I will come to later, while this transition in thinking is encouraging, and the direction is correct, we need to make sure the speed of progress is sufficient.

[2] Carney (2015), "Breaking the Tragedy of the Horizon – climate change and financial stability", speech given at Lloyd's of London, September 2015.

The second element relates to the Bank's financial stability objective. As discussed elsewhere[3], financial stability risks could arise from a late and sudden transition to a lower carbon economy. An abrupt transition could particularly impact carbon-intensive sectors. And as I said earlier, by the time climate change becomes a clear risk to financial stability, it may already be too late. The Bank's approach has therefore been to seek to reduce these risks to financial stability by engaging with initiatives which support an orderly market transition and facilitate a shift in financing to support climate goals.

I want to talk about three specific areas: disclosure, green finance initiatives and the need for coordination.

Disclosure

The Bank has been supportive of the FSB's Task-force for Climate Related Financial Disclosures (TCFD). The TCFD recommendations provide an excellent basis for firms to disclose their exposure to climate-related risks and opportunities and their related strategies, governance and risk management practices. Disclosure helps investors identify which businesses are best equipped to deal with the risks and opportunities that climate change presents. And that in turn creates the pressure for change that ensures the risks are managed better than they would otherwise be.

For me what was ground breaking about the TCFD recommendations was the introduction of scenario analysis - where firms set out the resilience of their strategy in different climate related scenarios, including a two degree or lower scenario. To be clear these scenarios are not forecasts or predictions. Rather they are data driven stories that are designed to enable the market to drive better decisions today. They are thus hugely more informative than spot observations of current exposures. And they are absolutely what is required to help investors price medium and long term risks like these.

The TCFD recommendations are voluntary. In my view that is important. I think we can all recognise that climate related financial risk disclosure - and in particular the scenario analysis I mentioned earlier - is an evolving discipline. Learning by doing and iterating with experience is the key to success and so keeping the recommendations voluntary allows them to be nimble and adaptable as experience grows. Long term risks like these are hard to measure. To be meaningful we need to bring together climate scientists, macroeconomists, financial risk modellers, and business heads. And we need time to develop our analytical capabilities, to experiment across these different disciplines and to innovate.

This reinforces the aim of the TCFD to create a virtuous circle where firms voluntarily adopt the recommendations, investors respond by making clear which disclosures are of particular value, and firms learn by doing as good practice emerges. This virtuous circle is already well established in financial markets.

[3] See, for example, Carney (2015), "Breaking the Tragedy of the Horizon – climate change and financial stability", speech given at Lloyd's of London, September 2015 and Carney (2016), "Resolving the climate paradox", Arthur Burns Memorial Lecture, Berlin September 2016.

And the TCFD is here to stay through the power of market uptake - with 250 major companies representing $6.5 trillion of market capitalisation and financial institutions (banks, insurers and asset managers) responsible for $80trn of assets already having committed to make these disclosures and to talk to the users of information about how to sharpen and refine what disclosures are provided.

Green Finance

It's perhaps less obvious that I, as a regulator and central banker, but wholly understandable that many of you here in the room, might be focused on the opportunities as well as the risks from climate change – and specifically the opportunity to 'mainstream' Green Finance.

Unfortunately, measuring and tracking green financing comprehensively is difficult, partly due to the lack of criteria, indicators and a clear taxonomy, and so an absence of proper green labelling.

But we can accurately measure the labelled green bond market. This has continued to develop rapidly: issuance reached over $150bn in 2017, and is forecast by some to pass $200bn this year overall. There have also been significant innovations in recent years. For example, the Agricultural Bank of China issued a green RMB bond and Bank of China issued the first ever green covered bond in 2016. We have also seen an increase in sovereign green bond issuance including from Poland, France and Nigeria.

But whilst welcome, this is not enough.[4] Around a fifth of the required investment in the renewable energy, energy efficiency and low emission vehicle sectors will need to come from green bonds.[5] If this is indicative of the need for green finance generally, we'll need to scale that $150bn up by a factor of ten.

More broadly, annual infrastructure financing has totalled around $5 trillion each year. That still leaves an annual gap of more than $1 trillion compared to a $6 trillion annual infrastructure need. Even more importantly, only around 10% of these infrastructure projects are estimated to have been low-carbon.[6] So whilst progress is encouraging – and provides valuable momentum – at current rates of issuance we are in danger of falling behind the investment path required to meet 2 degree targets.

So what more can be done?

In one sense, the TCFD benefits of increased disclosure, data and analytical capacity will ultimately bring to bear the discipline of market pricing across both green and 'brown' assets and issuance and help deliver the shift in financing required. However, as discussed earlier, the climate scenario analysis that would support

[4] Total green bond issuance only represents only around 1% of the global bond market, based on: SIFMA (2017) "2017 Fact Book"; and Climate Bonds Initiative (2017) "Bonds and Climate Change, The State of the Market 2017".
[5] Based on OECD (2016), "A quantitative framework for analysing potential bond contributions in a low-carbon transition".
[6] Climate Bonds Initiative and UNEP Inquiry into the Design of a Sustainable Financial System (2015) "Scaling up green bond markets for sustainable development".

such a shift is in its infancy and is an area where further research and collaboration is needed to support progress. Experts and financiers in the City and China have a role to play here. The work being done by the Taskforce in its pilot is to be commended.

Mobilising private capital today is essential. Almost two thirds of required financing will need to be directed at sustainable projects in developing countries. Governments alone will not be able to meet this challenge. Yet it is not obvious that private investors will naturally fill that gap. For instance, debt instruments issued by emerging market firms often do not fall within the mandate of advanced market investors due to a missing, or too low, credit rating.

It is in this context that bilateral partnerships such as the UK-China Taskforce are so important in accelerating progress. I commend the work of the Taskforce in tackling some of the most pressing and critical issues in this area - for example:

- consideration of the challenges involved in moving towards green definitions that are recognised internationally - since a market-wide taxonomy is clearly an important foundational step necessary for other initiatives to take hold;
- the work to develop green loan definitions and standardising key documentation which will be helpful in reducing barriers to issuance; and
- the push to improve the risk analysis tools that are available to investors, banks and regulators.

More broadly, in infrastructure financing, where the risks are often highest in the early stages of projects, there may also be lessons to be learnt from existing public-private partnerships and the use of risk sharing agreements. And there may be opportunities to encourage the 'crowding in' of private investment for green projects through the use of public sector money.

These ideas and structures are not new but could help support the allocation of green finance to economies where the need is greatest. The City and the UK China Green Taskforce are well-placed to support such work.

Coordination

Climate change is a global problem that is most effectively met with global solutions.

Given this need for a co-ordinated response, a significant element of the Bank's work has involved engaging with other financial regulators and central banks - both with our fellow regulators here in UK, and also internationally, to help raise awareness of climate-related issues.

The PRA is a founding member of the Sustainable Insurance Forum, a network of around twenty insurance regulators from around the world who are sharing knowledge and best practice on how to consider climate risk in insurance supervision. The Bank, as many of you know, has also co-chaired since 2016 the G20 Green Finance Study Group on behalf of the United Kingdom, with our colleagues at People's Bank of China. We continue to do so under Argentina's Presidency, the group now being the G20's Sustainable Finance Study Group. And most recently, the Bank has become a founding member of the Central Bank and Supervisors Network for Greening the Financial System[7].

Conclusion

We are part way through a transition in thinking where climate change is moving from being a social responsibility issue to being a core financial risk at the heart of how companies manage their business. It is these financial risks that create the link from climate change to the Bank of England's mandate - given our core responsibilities to ensure the safety and soundness of banks and insurers and our responsibility to support a stable financial system.

It's clear to me that many different actors - companies, investors, financiers, climate scientists, governments, financial policy makers - have a part to play, given their mandates and specialisms, to support this transition in thinking. And it is also clear that that transition in thinking needs to lead soon to transition in action, if we are to reduce these financial risks in a timely manner and so avoid a late and abrupt transition to the low carbon economy to which governments have committed.

To make this happen, we need to learn by doing, to identify decision-useful information that will support the necessary transition; and we need to identify the barriers to the mainstreaming of green finance so that the transition can be financed in practice.

It's a tough ask that gets more pressing by the day. The prize could not be more important. We must keep up the good work.

[7] https://www.banque-france.fr/en/financial-stability/international-role/network-greening-financial-system

References

Carney, M. (2015), “Breaking the Tragedy of the Horizon – climate change and financial stability”, *speech given at Lloyd’s of London, September 2015.*

Carney, M. (2016), “Resolving the climate paradox”, *Arthur Burns Memorial Lecture, Berlin September 2016*.

Climate Bonds Initiative (2017) “Bonds and Climate Change, The State of the Market 2017”.

Climate Bonds Initiative and UNEP Inquiry into the Design of a Sustainable Financial System (2015) “Scaling up green bond markets for sustainable development”.

OECD (2016), “A quantitative framework for analysing potential bond contributions in a low-carbon transition”.

PRA (2015), The Impact of Climate Change on the UK Insurance Sector.

Scott, M., Van Huizen, J. & Jung, C. The Bank of England’s response to climate change. *98–109 (Bank of England, 2017*).

SIFMA (2017) “2017 Fact Book”.