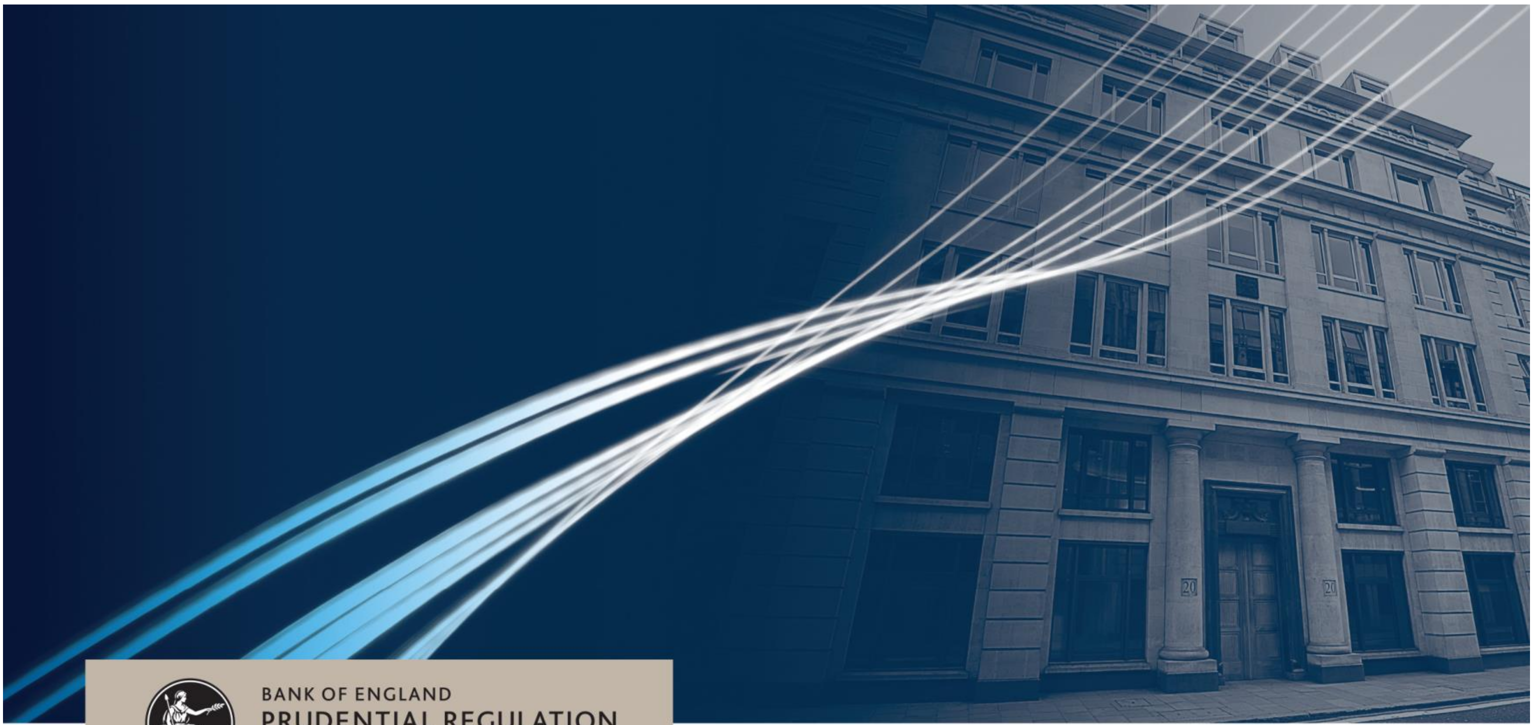

BANK OF ENGLAND
PRUDENTIAL REGULATION
AUTHORITY

Consultation Paper | 23/18

Enhancing banks’ and insurers’ approaches to managing the financial risks from climate change

October 2018

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The response will be assessed to inform our work as a regulator and central bank, both in the public interest and in the exercise of our official authority. We may use your details to contact you to clarify any aspects of your response.

The consultation paper will explain if responses will be shared with other organisations (for example, the Financial Conduct Authority). If this is the case, the other organisation will also review the responses and may also contact you to clarify aspects of your response. We will retain all responses for the period that is relevant to supporting ongoing regulatory policy developments and reviews. However, all personal data will be redacted from the responses within five years of receipt. To find out more about how we deal with your personal data, your rights or to get in touch please visit bankofengland.co.uk/privacy.

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Responses are requested by Tuesday 15 January 2019.

Please address any comments or enquiries to:
Prudential Regulation Authority
20 Moorgate
London
EC2R 6DA

Email: CP23_18@bankofengland.co.uk

Prudential Regulation Authority | 20 Moorgate | London EC2R 6DA

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1 Overview

1.1 In this consultation paper (CP), the Prudential Regulation Authority (PRA) seeks views on a draft supervisory statement (SS) on banks' and insurers' approaches to managing the financial risks from climate change (see Appendix).

1.2 The CP is relevant to all UK insurance and reinsurance firms and groups, ie those within the scope of Solvency II including the Society of Lloyd's and managing agents ('Solvency II firms') and non-Solvency II firms, (collectively referred to as 'insurers'), banks, building societies, and PRA-designated investment firms (hereinafter 'banks'). 'Firms' will be used to refer to both insurers and banks.

Background and purpose

1.3 The draft SS expands on the PRA's general approach as set out in its insurance and banking approach documents[1] and draws upon previous work from the Bank of England and PRA on the financial risks from climate change. The draft SS is informed by: recent engagement with the banking and insurance sectors; the PRA's report 'Transition in thinking: The impact of climate change on the UK banking sector'[2] published in September 2018; an exercise carried out by the PRA with the insurance sector between May and July 2018 that built on the findings from the 2015 insurance sector report;[3] and international liaison with other regulatory bodies.

1.4 The purpose of these proposals is to set out how effective governance, risk management, scenario analysis, and disclosures may be applied by firms to address the financial risks from climate change.

1.5 The draft SS is intended to complement existing policy material and inform compliance with existing requirements in legislation and PRA rules. The PRA's desired outcome is that firms take a strategic approach to managing the financial risks from climate change, taking into account current risks, those that can plausibly arise in the future, and identifying the actions required today to mitigate current and future financial risks. The draft SS sets out the PRA's proposed expectations concerning how firms:

(a) embed the consideration of the financial risks from climate change in their governance arrangements;

(b) incorporate the financial risks from climate change into exisisting risk management practice;

(c) use (long-term) scenario analysis to inform strategy setting and risk assessment and identification; and

(d) develop an approach to disclosure on the financial risks from climate change.

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1 The PRA approach documents for banking and insurance are available at: http://www.bankofengland.co.uk/news?NewsTypes=65d34b0d42784c6bb1dd302c1ed63653&Taxonomies=973f7bc68fd74abca30287f8a0a15fa3&Direction=Latest.

2 'Transition in thinking: The impact of climate change on the UK banking sector', September 2018: http://www.bankofengland.co.uk/prudential-regulation/publication/2018/transition-in-thinking-the-impact-of-climate-change-on-the-uk-banking-sector.

3 'The impact of climate change on the UK insurance sector', September 2015: https://www.bankofengland.co.uk/prudential-regulation/publication/2015/the-impact-of-climate-change-on-the-uk-insurance-sector.

1.6 The PRA considers that setting out its proposed expectations around how firms address the financial risks from climate change will enable firms to interpret the PRA's rules and facilitate these intended outcomes.

Responses and next steps

1.7 This consultation closes on Tuesday 15 January 2019. The PRA invites feedback on the proposals set out in this consultation. Please address any comments or enquiries to CP23_18@bankofengland.co.uk.

2 Background

2.1 Climate change, and society's response to it, presents financial risks which are relevant to the PRA's objectives. And while the financial risks from climate change may crystallise in full over longer time horizons, they are also becoming apparent now.

2.2 The PRA's recent review of the banking and insurance sectors has highlighted significant differences in the level of maturity of firms' responses to the financial risks from climate change. While firms' approaches are evolving from a Corporate Social Responsibility (CSR) perspective to also considering climate change as a financial risk, only a few firms have adopted a strategic approach to these risks.

2.3 The PRA's desired outcome is that firms take a strategic approach to managing the financial risks from climate change, thereby mitigating the associated risk to the PRA's primary objectives. Ensuring consistency of firms' approaches is also in line with the PRA's secondary competition objective.

Financial risks from climate change

2.4 The financial risks from climate change arise through two primary channels or 'risk factors': physical and transition. These manifest, for example, as increasing underwriting, reserving, credit, or market risk for firms.

2.5 Physical risks from climate change arise from a number of factors, and can be related to specific weather events (such as heatwaves, floods, wildfires and storms) and longer term shifts in climate (such as changes in precipitation and extreme weather variability, sea level rise and rising mean temperatures).

2.6 If losses related to physical risk factors are insured they can directly affect insurance firms through higher claims. Global insured losses from natural disaster events in 2017 were the highest ever recorded.[4] The number of registered weather related natural hazard loss events has tripled since the 1980s and inflation-adjusted insurance losses from these events have increased from an annual average of around US$10 billion in the 1980s to around US$55 billion over the last decade.[5]

2.7 If losses are uninsured the burden can fall on households and companies, impairing asset values, increasing credit risk for lenders and reducing the value of investments held by firms. For example, a reduction in the valuation of a property due to greater flood risk increases the

4 Swiss Re Institute (2018), sigma No1/2018. 'Natural Catastrophes and Man-Made Disasters in 2017: A Year of Record-Breaking Losses'. Available at: http://institute.swissre.com/research/overview/sigma/1_2018.html.

5 Carney, M. (2018), 'A Transition in Thinking and Action', speech given at the *International Climate Risk Conference for Supervisors*, April 2018, available at: http://www.bankofengland.co.uk/speech/2018/mark-carney-speech-at-international-climate-risk-conference-for-supervisors.

loan to value ratio of the mortgage and the credit risk on loan books through greater loss given default. For UK coastal properties affected by sea level rise, this risk is expected to become more material over time: under a 2°C scenario, sea levels in England are projected to rise 21-28 cm by 2080.[6]

2.8 Physical risks can also reach beyond the immediate impact of natural catastrophes. For example, the closure of factories following the Thai floods in 2011 led to the temporary disruption of many supply chains across the globe.[7]

2.9 Transition risks can arise from the process of adjustment towards a low-carbon economy. This adjustment is influenced by a range of factors including: climate-related developments in policy and regulation, the emergence of disruptive technology or business models, shifting sentiment and societal preferences, and evolving evidence, frameworks and legal interpretations. This could prompt a reassessment of the value of a large range of assets and create credit exposures for banks and other lenders as costs and opportunities become apparent.

2.10 An example of a potential transition risk is the new Minimum Energy Efficiency Standard in the UK. Properties with an energy performance certificate (EPC) rating in the lowest two categories (F and G) may not be rented as new leases or renewals. Landlords who do not improve the energy efficiency of these houses may be more likely to default on their buy-to-let mortgages, or the value of the property may be impaired, decreasing the value of a bank's collateral.

2.11 Climate-related litigation consequent to physical or transition risk factors can also reduce the value of companies that have failed to mitigate, adapt or disclose the financial risks from climate change. Parties who have suffered loss or damage from the effects of climate change may seek compensation from those they hold responsible. Those who pay the compensation may in turn seek to offset their financial loss by claiming from an insurer. For example, public liability, directors' and officers', and professional indemnity classes of insurance business could be affected where liability can be linked to failure to mitigate, failure to adapt, or failure to disclose.

Distinctive elements of the financial risks from climate change

2.12 The financial risks from climate change have a number of distinctive elements which, when considered together, present unique challenges and require a strategic approach. These elements include:

- Far-reaching in breadth and magnitude: the financial risks from physical and transition risk factors are relevant to multiple lines of business, sectors and geographies. Their full impact on the financial system may therefore be larger than for other types of risks, and is potentially non-linear, correlated and irreversible.

- Uncertain and extended time horizons: the time horizons over which financial risks may be realised are uncertain, and their full impact may crystallise outside of many current business planning horizons. Using past data may not be a good predictor of future risks.

6 Sayers, P.B., et al. (2015), *Climate Change Risk Assessment 2017: Projections of future flood risk in the UK,* available at: https://www.theccc.org.uk/wp-content/uploads/2015/10/CCRA-Future-Flooding-Main-Report-Final-06Oct2015.pdf.

7 'The impact of climate change on the UK insurance sector', September 2015: https://www.bankofengland.co.uk/prudential-regulation/publication/2015/the-impact-of-climate-change-on-the-uk-insurance-sector See footnote 3, page 1.

- Foreseeable nature: while the exact outcome is uncertain, there is a high degree of certainty that financial risks from some combination of physical and transition risk factors will occur.

- Dependency on short-term actions: the magnitude of future impact will, at least in part, be determined by the actions taken today. This includes actions by governments, firms, and a range of other actors.

2.13 The magnitude of the financial risks from climate-related factors will depend on future scenarios that will, at least in part, be determined by actions taken today. A 'too little, too late' scenario, where significant action is taken, but too late to achieve climate goals, could result in the most severe financial risks crystallising in the banking and insurance sectors. Financial risks from climate change will be minimised if there is an orderly market transition to a low-carbon world, but the window for an orderly transition is finite and closing.

The PRA's approach to the financial risks from climate change

2.14 The PRA considers that firms' practice regarding the financial risks from climate change will continue to develop and mature. The proposed expectations in the draft SS are therefore intentionally kept high level, to allow firms to continue developing their practice in line with the proposed expectations in the draft SS. As the consideration of the financial risks from climate change is still in its early stages, the PRA expects to complement this draft SS with future work, and policy proposals where necessary.

2.15 To build intellectual capacity and share best practice, the PRA and FCA will be establishing a Climate Financial Risk Forum. The Forum will involve senior staff from industry, as well as technical experts. It will seek to advance financial sector approaches to managing the financial risks from climate change and support innovation for financial products and services in green finance. It will achieve this by supporting, for example, the development of analytical tools and techniques, such as climate-related scenarios, to help more fully integrate climate-related factors into present day financial decision making.

3 Proposals

3.1 The draft SS in the Appendix to this CP sets out the PRA's proposed expectations on how firms address the financial risks from climate change. These include sections on: appropriate governance, risk management, scenario analysis, and disclosure in relation to the financial risks from climate change.

3.2 The following sections summarise the PRA's proposed expectations in the draft SS under each of these headings. The PRA considers that these proposed expectations are fully consistent with the rules and regulations listed in paragraph 1.6 of the draft SS, as well as the other PRA publications listed in those paragraphs.

Governance

3.3 The PRA proposes that firms fully embed the consideration of the financial risks from climate change into their governance framework. In particular, the PRA considers board-level engagement and accountability important to ensure there is adequate oversight of the firm's business strategy and risk appetite. The PRA would also expect that the board and its sub-committees have clear responsibilities for managing the financial risks from climate change, including individual responsibility(ies) for the relevant existing Senior Management Function (SMF) holder(s).

Risk management

3.4 The PRA proposes that firms address the financial risks from climate change through their existing risk management framework, in line with their board-approved risk appetite, while recognising that the nature of financial risks from climate change requires a strategic approach. Firms would be expected to identify, measure, monitor, manage, and report on their exposure to these risks. Firms should be able to evidence this in the written risk management policy, management information and board risk reports.

Scenario analysis

3.5 Where proportionate, the PRA proposes that firms use scenario analysis to assess the impact of the financial risks from climate change on their current business strategy, and to inform the risk identification process. The scenarios should address a range of outcomes on the transition to a lower-carbon economy and a range of climate change scenarios leading to increased physical risks. The scenarios should, where appropriate, include a short and a longer term assessment. It is expected that firms' approaches will develop and mature over time.

Disclosure

3.6 The PRA expects that firms will develop and maintain an appropriate approach to disclosure of climate-related financial risks, which takes into account not only the interaction with existing categories of risk, but also the distinctive elements of the financial risks arising from climate change as described in the draft SS.

4 The PRA's statutory obligations

4.1 The PRA is required by the Financial Services and Markets Act 2000 (FSMA) to consult when setting its general policies and practices.[8] In doing so, it is required to comply with several statutory and public law obligations. The PRA meets these obligations by providing the following in its consultations:

- a cost benefit analysis;
- an explanation of the PRA's reasons for believing that making the proposed policy is compatible with the PRA's duty to act in a way that advances its general objective,[9] insurance objective,[10] and secondary competition objective;[11]
- an explanation of the PRA's reasons for believing that making the proposed policy is compatible with its duty to have regard to the regulatory principles;[12] and
- a statement as to whether the impact of the proposed policy will be significantly different to mutuals than to other persons and if so details of the difference.[13]

4.2 The Prudential Regulation Committee (PRC) should have regard to aspects of the Government's economic policy as recommended by HM Treasury.[14]

8 Section 2L of FSMA.
9 Section 2B of FSMA.
10 Section 2C of FSMA.
11 Section 2H(1) of FSMA.
12 Section 2H(2) and 3B of FSMA.
13 Section 138K of FSMA.
14 Section 30B of the Bank of England Act 1998.

4.3 The PRA is also required by the Equality Act 2010[15] to have due regard to the need to eliminate discrimination and to promote equality of opportunity in carrying out its policies, services and functions.

Cost benefit analysis

4.4 The PRA is not obliged to provide a cost benefit analysis of the proposals in a draft SS but considers it good practice to do so in qualitative terms. The proposals in this CP could lead to additional costs to firms, both one-off and ongoing. These costs may rise with firm size and complexity and will be partly dependent on firms' approaches to scenario analysis and disclosure. Firms might already adopt the 'Recommendations of the Task Force on Climate-related Financial Disclosures' published in June 2017[16] or take part in relevant industry working groups on these issues, in which case any incremental costs resulting directly from the PRA's proposed expectations would likely be lower.

4.5 The proposals in this CP are expected to generate economic benefits by improving firms' understanding of and responses to the current and future financial risks from climate change facing them. This will enhance the financial system's resilience to the financial risks from climate change and help minimise future financial risks.

Compatibility with the PRA's objectives

4.6 In discharging its general functions, the PRA must, so far as reasonably possible, act in a way that advances its general objective to promote the safety and soundness of PRA-authorised persons;[17] and in the context of insurance, to contribute to policyholder protection.[18] By setting out its proposed expectations on firms in relation to governance, risk management, scenario analysis and disclosure, the PRA seeks to advance its statutory objectives of ensuring the safety and soundness of the firms it regulates, and contributing to securing an appropriate degree of protection for policyholders.

4.7 When discharging its general functions, the PRA is legally required, so far as is reasonably possible, to facilitate effective competition in the markets for services provided by PRA-authorised persons in carrying on regulated activities. The PRA has assessed whether the proposals in this CP facilitate effective competition and considers that there will not be a material impact on competition because the costs of the proposals are expected to affect firms in a proportionate manner.

Regulatory principles

4.8 In developing the proposals in this CP, the PRA has had regard to the regulatory principles as set out in FSMA. The PRA considers that three of the regulatory principles are of particular relevance to this CP:

- The principle that a burden or restriction which is imposed on a person, or on the carrying on of an activity, should be proportionate to the benefits, considered in general terms, which are expected to result from the imposition of that burden or restriction. The PRA's proposals are consistent with this principle as firms are able to adopt a proportionate approach to meeting the PRA's proposed expectations.

15 Section 149.
16 Available at: https://www.fsb-tcfd.org/publications/final-recommendations-report/.
17 Sections 2B (1) and Section 2B (2) of FSMA.
18 Section 2C of FSMA.

- The principle that the PRA should exercise its functions as transparently as possible. The PRA has consulted with stakeholders in developing the proposals contained in this CP, and sets out the key information relevant to its proposal, giving respondents the opportunity to comment.

- The desirability in appropriate cases of the PRA exercising its functions in a way that recognises differences in the nature of, and objectives of, business carried on by different persons subject to requirements imposed by or under FSMA. The PRA has presented the draft policy in the form of expectations in a SS to allow firms' supervisors to apply supervisory judgement in assessing how the policy would apply to a firm, given the nature, scale and complexity of their business.

Impact on mutuals

4.9 The PRA considers that the impact of the proposals on mutuals is expected to be no different from the impact on other firms.

HM Treasury recommendation letter

4.10 HM Treasury has made recommendations to the PRC about aspects of the Government's economic policy to which the PRC should have regard when considering how to advance the PRA's objectives and apply the regulatory principles set out in FSMA.[19]

4.11 The aspects of the Government's economic policy most relevant to the proposals in this CP are growth, innovation, and competitiveness. Improving the financial sector's understanding of and planning for financial risks from climate change should support growth, innovation, and competitiveness by helping ensure the financial services sector is better placed to deal with the risks arising from the transition to a low-carbon economy than would otherwise be the case.

Equality and diversity

4.12 The PRA has considered the equality and diversity issues that may arise from the proposals in this consultation. The PRA considers that the proposals in this consultation do not raise any concerns with regards to equality and diversity.

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19 Information about the PRC and the recommendations from HM Treasury are available on the Bank's website at https://www.bankofengland.co.uk/about/people/prudential-regulation-committee.

Appendix: Draft Supervisory Statement ‘Enhancing banks’ and insurers’ approaches to managing the financial risks from climate change’

Contents

1	**Introduction**
2	**Financial risks from climate change**
3	**A strategic approach to managing the financial risks from climate change**

1 Introduction

1.1 This supervisory statement (SS) is relevant to all UK insurance and reinsurance firms and groups, i.e. those within the scope of Solvency II including the Society of Lloyd's and managing agents ('Solvency II firms') and non-Solvency II firms, (collectively referred to as 'insurers'), banks, building societies, and Prudential Regulation Authority (PRA) designated investment firms (hereinafter 'banks'). 'Firms' will be used to refer to both insurers and banks.

1.2 Climate change, and society's response to it, present financial risks which are relevant to the PRA's objectives. And while the financial risks from climate change may crystallise in full over longer time horizons, they are also becoming apparent now.

1.3 The PRA's reviews of current practice in the banking[1] and insurance[2] sectors have highlighted that, while firms are enhancing their approaches to managing the financial risks from climate change, few firms are taking a strategic approach that considers how actions today affect future financial risks.

1.4 Chapter 2 describes the two risk factors through which financial risks from climate change arise and the distinctive elements which, when considered together, present unique challenges and require a strategic approach.

1.5 Chapter 3 sets out the PRA's expectations concerning this strategic approach, including how firms:

(a) embed the consideration of the financial risks from climate change in their governance arrangements;

(b) incorporate the financial risks from climate change into existing financial risk management practice;

(c) use (long term) scenario analysis to inform strategy setting and risk assessment and identification; and

(d) develop an approach to disclosure on the financial risks from climate change.

1.6 This SS should be read in conjunction with the materials included in Table 1:

1 'Transition in thinking: The impact of climate change on the UK banking sector', September 2018: www.bankofengland.co.uk/prudential-regulation/publication/2018/transition-in-thinking-the-impact-of-climate-change-on-the-uk-banking-sector.

2 'The impact of climate change on the UK insurance sector', September 2015: www.bankofengland.co.uk/prudential-regulation/publication/2015/the-impact-of-climate-change-on-the-uk-insurance-sector.

Table 1: Materials to be read alongside SS 'Enhancing banks' and insurers' approaches to managing the financial risks from climate change'

Banks	Insurers
The PRA's approach to banking supervision[3]	The PRA's approach to insurance supervision
Fundamental Rules 5 and 6 of the PRA Rulebook[4]	Fundamental Rules 5 and 6 of the PRA Rulebook
Governance and risk management	
General Organisational Requirements, Internal Capital Adequacy Assessment, Risk Control, Allocation of Responsibilities, Market Risk 2.1 and Group Risk Systems 2.1 of the PRA Rulebook	the Conditions Governing Business, Investments, Insurance – Allocation of Responsibilities, Insurance – Conduct Standards and Insurance – Senior Insurance Management Functions Parts of the PRA Rulebook for Solvency II firms
SS5/16 'Corporate Governance: Board responsibilities'[5] and SS21/15 'Internal governance'[6]	Articles 258-262 and 269 of the Solvency II EU Delegated Regulation[7]
	SS4/18 'Financial management and planning by insurers'[8]
	SS5/16 'Corporate Governance: Board responsibilities'
Scenario analysis	
Internal Capital Adequacy Assessment Part of the PRA Rulebook	Conditions Governing Business part of the PRA Rulebook
SS31/15 'The Internal Capital Adequacy Assessment Process (ICAAP) and the Supervisory Review and Evaluation Process (SREP)' [9]	SS19/16 'Solvency II: ORSA'[10]
Disclosure	
Article 431 and 435 of the Capital Requirements Regulation[11]	Article 295 of the Solvency II EU Delegated Regulation[12]
EBA Guidelines on disclosure requirements under Part Eight of Regulation (EU) No 575/2013[13]	

2 Financial risks from climate change

2.1 Financial risks from climate change arise through two primary channels, or 'risk factors': physical and transition. These manifest, for example, as increasing underwriting, reserving, credit, or market risk for firms.

2.2 The PRA's report on the impact of climate change on the UK insurance sector identified a third risk factor - liability risks - arising from parties who have suffered loss or damage from physical or transition risk factors seeking to recover losses from those they hold responsible. The legal risks from climate-related liabilities can be of particular importance to insurance firms given these risks can be transferred through liability protection, such as directors' and officers' and professional indemnity insurance. Given these legal risks arise from physical or

3 The PRA approach documents for banking and insurance are available at: http://www.bankofengland.co.uk/news?NewsTypes=65d34b0d42784c6bb1dd302c1ed63653&Taxonomies=973f7bc68fd74abca30287f8a0a15fa3&Direction=Latest.
4 http://www.prarulebook.co.uk/.
5 March 2016: https://www.bankofengland.co.uk/prudential-regulation/publication/2016/corporate-governance-board-responsibilities-ss.
6 April 2017: https://www.bankofengland.co.uk/prudential-regulation/publication/2015/internal-governance-ss.
7 https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32015R0035&from=EN.
8 May 2018: https://www.bankofengland.co.uk/prudential-regulation/publication/2018/financial-management-and-planning-by-insurers-ss.
9 April 2018: https://www.bankofengland.co.uk/prudential-regulation/publication/2013/the-internal-capital-adequacy-assessment-process-and-supervisory-review-ss.
10 November 2016: http://www.bankofengland.co.uk/prudential-regulation/publication/2016/solvency2-orsa.
11 http://www.eba.europa.eu/regulation-and-policy/single-rulebook/interactive-single-rulebook/-/interactive-single-rulebook/toc/504
12 https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=OJ:L:2015:012:TOC
13 EBA/GL/2016/11: https://www.eba.europa.eu/documents/10180/1918833/Guidelines+on+disclosure+requirements+under+Part+Eight+of+Regulation+575+2013+%28EBA-GL-2016-11%29_EN.pdf/8daeb580-5f64-418e-bf10-6786cb57424d

transition risk factors and the distinctive elements discussed in paragraph 2.5, they are referred to within the more detailed discussion of the two risk factors below.

Physical

2.3 Physical risks from climate change arise from a number of factors, and can be related to specific weather events (such as heatwaves, floods, wildfires and storms) and longer term shifts in climate (such as changes in precipitation and extreme weather variability, sea level rise and rising mean temperatures). Some examples include:

- increasing frequency, severity or volatility of extreme weather events, such as hurricanes or windstorms, impacting property and casualty insurance; and

- increasing frequency and severity of flooding leading to physical damage in the value of financial assets or collateral held by banks, such as household and commercial property. This can lead to increased credit risks, particularly for banks, or if resulting in legal claims to recover financial losses from this physical damage, to underwriting risks for liability insurers.

Transition

2.4 Transition risks can arise from the process of adjustment towards a low-carbon economy. This adjustment is influenced by a range of factors including: climate-related developments in policy and regulation, the emergence of disruptive technology or business models, shifting sentiment and societal preferences or evolving evidence, frameworks and legal interpretations. Some examples include:

- tightening energy efficiency standards for domestic and commercial buildings impacting the risk in banks' buy-to-let lending portfolios;

- rapid technological change, such as the development of electric vehicles or renewable technology, affecting the value of financial assets in the automotive and energy sector; and

- companies in the wider economy that fail to mitigate, adapt, or disclose the financial risks from climate change being exposed to climate-related litigation, which could impact on their market value or lead to higher claims for insurers that are providing liability cover to those companies.

Distinctive elements of the financial risks from climate change

2.5 The financial risks from climate change have a number of distinctive elements which, when considered together, present unique challenges and require a strategic approach to financial risk management. These elements include:

- Far-reaching in breadth and magnitude: The financial risks from physical and transition risk factors are relevant to multiple lines of business, sectors and geographies. Their full impact on the financial system may therefore be larger than for other types of risks, and is potentially non-linear, correlated and irreversible.

- Uncertain and extended time horizons: the time horizons over which financial risks may be realised are uncertain, and their full impact may crystallise outside of many current business planning horizons. Using past data may not be a good predictor of future risks.

- Foreseeable nature: while the exact outcome is uncertain, there is a high degree of certainty that financial risks from some combination of physical and transition risk factors will occur.

- Dependency on short-term actions: the magnitude of future impact will, at least in part, be determined by the actions taken today. This includes actions by governments, firms, and a range of other actors.

2.6 The magnitude of the financial risks from climate-related factors will depend on future scenarios that will, at least in part, be determined by actions taken today. A 'too little, too late' scenario, where significant action is taken, but too late to achieve climate goals, could result in the most severe financial risks crystallising in the banking and insurance sector. Financial risks from climate change will be minimised if there is an orderly market transition to a low-carbon world, but the window for an orderly transition is finite and closing.

3 A strategic approach to managing the financial risks from climate change

3.1 The PRA expects a firm's response to the financial risks from climate change to be proportionate to the nature, scale and complexity of its business. As expertise develops, the PRA expects a firm's approach to managing the financial risks from climate change to mature over time. The PRA intends to embed the measurement and monitoring of these expectations into its existing supervisory framework.

Governance

3.2 The PRA expects a firm's board to understand and assess the financial risks from climate change that affect the firm, and to be able to address and oversee these risks within the firm's overall business strategy and risk appetite. The approach should demonstrate an understanding of the distinctive elements of the financial risks from climate change and a sufficiently long-term view of the financial risks that can arise, beyond standard business planning horizons.

3.3 Where appropriate, the PRA will expect to see evidence of how the firm monitors and manages the financial risks from climate change in line with its risk appetite statement. The risk appetite statement should include the risk exposure limits and thresholds for the financial risks that the firm is willing to bear, and should take into account factors such as:

- the long-term financial interests of the firm, and how decisions today affect future financial risks;

- the results of stress and scenario testing, for shorter and longer time horizons;

- uncertainty around the timing and the channels through which the financial risks from climate change may materialise; and

- sensitivity of the balance sheet to changes in key risk drivers and external conditions.

3.4 The PRA expects firms to have clear roles and responsibilities for the board and its relevant sub-committees in managing the financial risks from climate change. In particular, the board and the highest level of executive management should identify and allocate responsibility for identifying and managing financial risks from climate change to the relevant existing Senior Management Function(s) (SMF(s)) most appropriate within the firm's organisational structure and risk profile, and ensure that these responsibilities are included in the SMF(s)'s Statement of Responsibilities. The PRA expects to see evidence that the board and its relevant sub-committees exercise effective oversight of risk management and controls. Further, the PRA expects the board to ensure that adequate resources and sufficient skills and expertise are devoted to managing the financial risks from climate change.

Risk management

3.5 The PRA expects firms to address the financial risks from climate change through their existing risk management frameworks, in line with their board-approved risk appetite, while recognising that the nature of the risks requires a strategic approach. In a manner proportionate to their business, firms should identify, measure, monitor, manage and report on their exposure to these risks. Firms should be able to evidence this in their written risk management policies, management information, and board risk reports. This includes, where appropriate, updating existing risk management policies.

Risk identification and measurement

3.6 The PRA expects firms to understand the financial risks from climate change and how they will affect their business model. Firms should include what they determine to be any material exposures relating to the financial risks from climate change in the Internal Capital Adequacy Assessment Process (ICAAP) or Own Risk and Solvency Assessment (ORSA). This should include an articulation of how firms have determined what constitutes a material exposure in the context of their business.

3.7 Firms should use scenario analysis and stress testing to inform the risk identification process and understand the short- and long-term financial risks to their business model from climate change. Firms are also expected to go beyond using only historical data to inform their risk assessment, for example by considering future trends in catastrophe modelling. The PRA expects that such scenarios will develop and mature over time as firms learn from experience and each other.

Risk monitoring

3.8 Where appropriate, the PRA expects firms to consider a range of quantitative and qualitative tools and metrics to monitor their exposure to financial risks from climate change. For example, these could be used to monitor exposures to climate-related risk factors which could result from changes in the concentration of firms' investment or lending portfolios, or to the potential impact of physical risk factors on outsourcing arrangements and supply chains. The PRA expects that these metrics and tools will evolve and mature over time as firms gain experience.

3.9 Firms should also use these metrics to monitor progress against their overall business strategy and risk appetite. The metrics should be updated regularly to support decision making by the firm's board and/or relevant sub-committees. Firms should set out circumstances which would trigger a review of its strategy for addressing the financial risks from climate change.

Risk management and mitigation

3.10 Where the potential impact of the financial risks from climate change are assessed to be material (for example as a result of scenario analysis), the PRA expects firms to evidence how they will mitigate these financial risks and to have a credible plan or policies in place for managing exposures. This could include actions the firm is taking to reduce concentrations of these risks.

3.11 For Solvency II insurers, under the Prudent Person Principle (PPP) an undertaking should only invest in assets for which risks can be identified, measured, monitored, managed, controlled, and reported.[14] A key requirement of the PPP for the purposes of this SS is that, where insurers bear the investment risk, insurers must diversify their assets to avoid excessive accumulation of risk in the investment portfolio. Solvency II insurers should therefore consider whether there is an excessive accumulation of financial risks from climate change (particularly those likely to crystallise via the transition risk factor) in their investment portfolio, and consider mitigants when this is the case.

3.12 To inform their risk assessment and management, firms should seek to understand the potential current and future impacts of the physical and transition risk factors on their clients, counterparties, and organisations in which the firm invests or may invest. To the extent that firms do not have the necessary information, firms are expected to engage with clients and counterparties where this information is considered material to a firm's own risks. Firms could also consider using data from publicly available sources or working together with external experts to collect (asset-level) data.

Risk reporting and management information

3.13 The PRA expects firms to provide the board and relevant sub-committees with management information on their exposure to the financial risks from climate change and the mitigating actions the firm proposes to take. The management information should enable the board to discuss, challenge, and take decisions relating to the firm's management of the financial risks from climate change.

Scenario analysis

3.14 Where proportionate, the PRA expects firms to conduct scenario analysis to inform their strategic planning and determine the impact of the financial risks from climate change on their overall risk profile and business strategy. Scenario analysis should also be used to explore the resilience and vulnerabilities of a firm's business model to a range of outcomes. The PRA expects approaches to scenario analysis to evolve and mature over time.

3.15 The PRA expects a firm's scenario analysis to address a range of outcomes relating to different transition paths to a low-carbon economy, and a path where no transition occurs. The scenario analysis should, where appropriate, include:

- a short-term assessment which sets out the firm's exposure to the financial risks from climate change within its existing business planning horizon, including, where appropriate, the quantification of these risks; and

- a longer term assessment of the firm's exposure, based on its current business model, of a range of different climate-related scenarios. For example: scenarios based around average global temperature increases consistent with, or in excess of 2˚C; and scenarios where the market transition to a low-carbon economy occurs in an orderly manner, or not. As with other types of scenario analysis, this is not intended to be a precise forecast, but a qualitative exercise used to inform strategic planning and decision making.

3.16 The PRA expects firms to use these scenarios to understand the impact of the financial risks from climate change on their solvency, liquidity and, for insurers, their ability to pay policyholders. Where a firm relies on management actions to mitigate the financial risks from a

[14] Art. 132(1) – (2) of the Solvency II Directive: http://www.prarulebook.co.uk/rulebook/Content/Chapter/212928/07-08-2018.

scenario, it should consider whether these are realistic, credible, consistent with regulatory expectations, and achievable. For example, it should not rely on the existence of a liquid market to sell the assets it has identified as being exposed. Firms should also consider whether any of the actions identified should be taken in advance as precautionary measures, or whether they would be relevant or desirable only if the scenario emerges.

3.17 For insurers, Solvency II states that consideration of the long term is essential to insurers being able to assess their ability to continue as a going concern. For banks, the SS on the ICAAP[15] sets out that scenario analysis should be used to explore the sensitivities in longer-term business plans. The 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. Scenario analysis is a key tool that the PRA expects firms to employ as part of that assessment.

Disclosure

3.18 Banks and insurers have existing requirements to disclose information on material risks within their Pillar 3 disclosures (as required under Capital Requirements Regulation (575/2013) (CRR) and Solvency II), and on principal risks and uncertainties in their Strategic Report (as required under the UK Companies Act). The following paragraphs set out the PRA's expectations to inform firms' compliance with these broad disclosure obligations.

3.19 The PRA expects firms to consider the extent to which the disclosure requirements above reflect their engagement with the expectations in this SS, and whether additional disclosures are necessary to enhance the transparency of the firm's approach to the financial risks from climate change. The PRA expects that firms will develop and maintain an appropriate approach to disclosure of the financial risks from climate change, which takes into account their distinctive elements. Firms should look to evolve their disclosures to make these as insightful as possible, and in particular should ensure they reflect the firm's evolving understanding of the financial risks from climate change described in this SS.

3.20 All firms within the scope of this SS should consider the relevance of disclosing how climate-related financial risks are integrated into governance and risk management processes, including the process by which a firm has assessed whether these risks are considered material or principal risks.

3.21 The PRA expects firms to engage with wider initiatives on climate-related financial disclosures and to take into account the benefits of disclosures which are comparable across firms, for example the 'Recommendations of the Taskforce on Climate-related Financial Disclosure' published in June 2017.[16] Various other groups have done work on this area to help provide tools or case studies for organisations to consider when making climate-related financial disclosures. The PRA expects firms to consider whether they would benefit from engaging with some of these initiatives or making use of some of these tools. Firms would benefit from greater disclosure in the wider economy, and they would be in a strong position to encourage it through their ownership of financial assets.

15 SS31/15 'The Internal Capital Adequacy Assessment Process (ICAAP) and the Supervisory Review and Evaluation Process (SREP)', April 2018: https://www.bankofengland.co.uk/prudential-regulation/publication/2013/the-internal-capital-adequacy-assessment-process-and-supervisory-review-ss.

16 https://www.fsb-tcfd.org/publications/final-recommendations-report/.