Integration of Climate Risk into Risk Management Frameworks

Sarah Rickard, HSBC UK

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Transition to a low carbon economy - opportunities and risks

Opportunities

- **Increased financing demand to enable shift to low-carbon economy (e.g. renewable energy, electric vehicles, etc.)**
- **New products and propositions to meet climate related requirements (e.g. green loans)**
- **New growth areas and sectors (e.g. cleantech, energy efficiency products)**
- **Strategic engagement with clients**
- **Brand and reputational advantages as leaders in sustainable finance**

USD 100 trillion of investments in sustainable infrastructure and the transition to the low carbon economy needed by 2030[1]

Risks

- **Rapid decline in asset values (equity and debt) linked to fossil fuel use (e.g. stranded assets)**
- **Physical destruction and economic disruption from extreme weather patterns**
- **Increased regulation and disclosure requirements**
- **Changing investor expectations and investment criteria (ESG)**
- **Brand and reputational damage for financing activities deemed environmentally harmful**

Up to USD17bn stranded assets from transition risk[2]

c. USD85bn annual insurance losses from climate related events

1. International Energy Agency and OECD
2. MIT

Regulators, governments, and investors are increasing the pace

Examples of catalysts

Regulators

- **Financial Stability Board (FSB)** by **G20** established **TCFD** (2015)
- **Network for Greening the Financial System (NGFS)** brought together central banks and supervisors (2017)
- **3: Recommendations about "Green Finance baseline and targets", ESG investing for Exchange fund, Centre for Green Finance**
- **Climate Stress test announced** (2019)
- **Prudential Regulatory Authority (PRA)** published research on financial risks and a consultation paper on supervisory statement
- **Financial Conduct Authority (FCA)** published a paper on impact of climate change and green finance on financial services (2018)

Governments

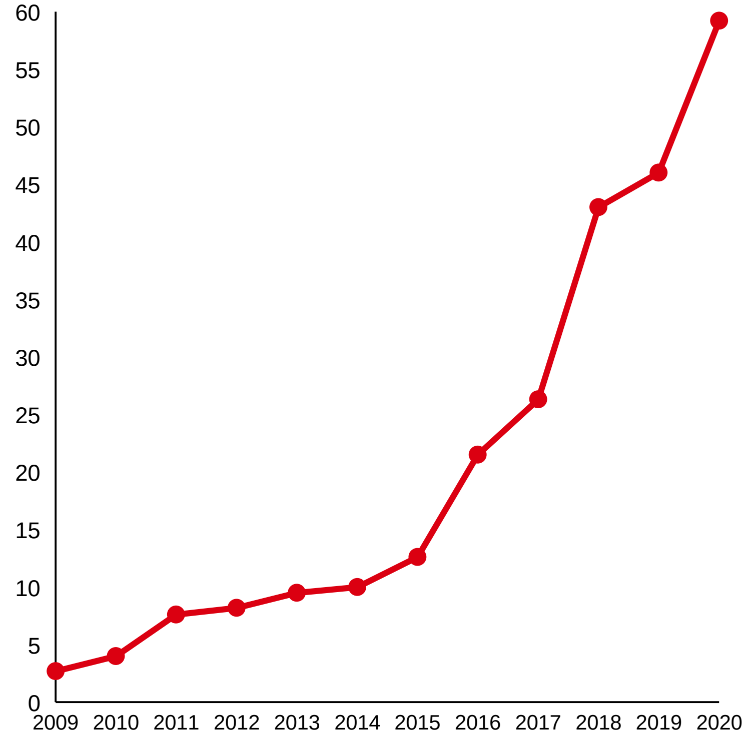
- **Legislated "Net Zero" by 2050** (2019)
- Hosting **COP26** in 2021
- EU present **Sustainable Finance Action Plan** (2018)
- EU presented **European Green Deal** (December 2019)
- France's **Energy Transition Law, Article 173** (2015)
- **French Strategy for Green Finance** (2017)
- **National guidelines** for establishing a green financial system; green investment; green bonds; green Belt and Road (2014-2017)
- HK plans to issue its own **green bond** and establish **grant scheme**

Investors

- Various initiatives and organisations
- **Principles for Responsible Investment**
- **Climate Action 100+**
- **Institutional Investors Group on Climate Change (IIGCC)**
- **Global Impact Investor Network (GIIN)**

Example: Stock exchanges with guidance on ESG disclosure[1]

Sharp increase in guidance after SSE launches Model Guidance (number of exchanges)



1. Source: SSE database, UN Sustainable Stock Exchange initiative: 10 Years of Impact and Progress, 2019

Climate Risk – Regulatory Agenda in UK

PRA – Prudential Regulation Authority

In March 2019, the PRA issued a supervisory statement setting out proposed expectations concerning:

1. **Governance** -embed the consideration of the financial risks from climate change in their governance arrangements;
2. **Risk Management** - incorporate the financial risks from climate change into existing risk management practice;
3. **Scenario Analysis** -use (long-term) scenario analysis to inform strategy setting, and risk identification and assessment;
4. **Disclosures** - develop an approach to disclosure on the financial risks from climate change**.**

In December 2019 the Bank of England issued a discussion paper outlining proposals for the Biennial Exploratory Scenario (BES) Stress Test. The objective is to test the resilience of the current business models of the largest banks, insurers and the financial system to the physical and transition risks from climate change.

FCA – Financial Conduct Authority

"To meet our strategic and operational objectives in respect of climate change and green finance, we will focus on three outcomes:

1. Issuers provide markets with readily available, reliable and consistent **information** on their exposure to material climate change risks and opportunities.
2. Regulated financial services firms integrate consideration of **material climate change risks** and opportunities into their business, risk and investment decisions.
3. Consumers have **access to green finance products** and services, which meet their needs and preferences, and **receive appropriate information and advice** to support their investment decisions"[1]

1. Climate Change and Green Finance (FS19/6 and DP18/8) Oct 2019

What is Climate Risk?

There are two main types of climate-related financial risk – Transition and Physical. Physical risks being due to impacts of climate events, e.g. weather, sea level rise; and transition risks arising from the process of moving to a low-carbon economy, e.g. impacts of carbon tax, new technologies, changes in consumer demand.

Transition Risks

- If customers' business models are not aligned with the transition to a low-carbon economy, this could result in financial loss, thereby **increasing credit risk for financial services firms**
- If financial markets are unable to organise themselves to allocate capital in a way that supports the transition, then policymakers may look to encourage or mandate them to do so, **increasing legal or regulatory compliance risk for financial services**
- If financial services firms finance or invest in environmentally harmful companies, this **could result in reputational risk**

Physical Risks

Physical risk events, such as extreme weather scenarios can:

- Cause significant losses for homeowners, reducing their ability to repay loans and damaging the value of property **increasing credit risk for financial services firms**
- Impact financial services firms' business continuity (staff/property/systems) resulting in detriment to customers, thereby **increasing operational risk for firms**

Photo sources: (1) Garissa Solar Plant, Kenya: Cleanleap.com, (2) Typhoon Haima approaching HK, wsj.com

What is Climate Risk?

Non-Financial Risk

Whilst the PRA focus is on Financial Risks of Climate Change, there are impacts within non-financial risk areas too, including:

Resilience Risks	Reputational Risks	Regulatory Risk	Strategic Risks	People Risks
• Physical impacts of climate change	• Importance of sustainability	• Changing regulatory landscape	• Changing customer expectations	• Changing expectations of our staff

Of particular note is the risk of **Greenwashing**.

This relates to conveying a false impression or misleading consumers on environmental credentials.

This is a material risk for the financial services industry. In UK there are no comprehensive industry standard criteria for labelling financial products as ‘green’.

Even if the green credentials are transparent, consumers are unable to easily compare green products across the market.

Risk Management Frameworks

The **Climate Financial Risk Forum Guide (June 2020)**[1] highlights that good practice for a climate risk framework includes the following elements:

1. Good practice is to **treat climate risk as a cross-cutting risk type** that manifests through most of the established principal / standalone risk types. Whether treated as a principal risk or a cross-cutting risk type, linkages of climate risks with established risk types (particularly the more material risks such as underwriting, credit, operational and financial market) should be established and understood in the firm.

2. There should be **tools to identify and assess physical and transition risks**. It may be necessary to collaborate with external experts to fill the internal knowledge and expertise gaps.

3. Central **risk frameworks and relevant policies** should be updated

4. A **uniform risk taxonomy and risk categories** should be developed – both for individual clients and transactions (particularly for material transactions), and at an aggregate portfolio level so risk concentrations may be assessed.

5. Climate risk **Management Information** ("MI") should be included in established risk reporting (e.g. to governance committees).

1. https://www.bankofengland.co.uk/news/2020/june/the-cfrf-publishes-guide-to-help-financial-industry-address-climate-related-financial-risks

Bank of England Biennial Exploratory Scenario (BES) Stress Test

Bank of England BES Stress Test[1]

This exercise (BES 2021) provides a comprehensive assessment of the UK financial system's exposure to climate-related risks and therefore the scale of adjustment that will need to be undertaken in coming decades for the system to remain resilient.

It will provide a vehicle for financial firms to identify and address data gaps and to develop cutting-edge risk management approaches.

The proposal differs from traditional stress tests in several areas:

1. Multiple scenarios: the BES will test the resilience of individual firms and the financial system to **three climate scenarios** (early action / later action / no action)

2. Broader participation: the BES will test the resilience of both the UK's largest banks and insurers to climate-related risks.

3. Extended modelling horizon: the BES will use a **30-year modelling horizon.**

4. Integrated **climate and macrofinancial variables**

5. Counterparty-level modelling expectations: firms will assess the vulnerability of individual counterparties' business models to the underlying climate-related risks in each scenario.

1. https://www.bankofengland.co.uk/-/media/boe/files/paper/2019/the-2021-biennial-exploratory-scenario-on-the-financial-risks-from-climate-change.pdf?la=en&hash=73D06B913C73472D0DF21F18DB71C2F454148C80

Summary

There are many ways Climate Change will impact the financial system

Financial Services firms need to be able to identify and manage these risks, within a comprehensive risk framework

Regulatory expectations are changing rapidly, as well as those of investors, customers and society

There are considerable challenges including data and modelling which will require significant development

Financial services firms need to take immediate action

UK Regulatory Publications

Climate Financial Risk Forum Guide (June 2020)
https://www.bankofengland.co.uk/news/2020/june/the-cfrf-publishes-guide-to-help-financial-industry-address-climate-related-financial-risks

PRA – Prudential Regulation Authority
Policy Statement 11/19 Enhancing banks' and insurers' approaches to managing the financial risks from climate change
https://www.bankofengland.co.uk/prudential-regulation/publication/2018/enhancing-banks-and-insurers-approaches-to-managing-the-financial-risks-from-climate-change

The 2021 biennial exploratory scenario on the financial risks from climate change
https://www.bankofengland.co.uk/-/media/boe/files/paper/2019/the-2021-biennial-exploratory-scenario-on-the-financial-risks-from-climate-change.pdf?la=en&hash=73D06B913C73472D0DF21F18DB71C2F454148C80

European Securities and Markets Authority (ESMA)
Strategy on Sustainable Finance (Feb 2020)
https://www.esma.europa.eu/sites/default/files/library/esma22-105-1052_sustainable_finance_strategy.pdf

Joint Statement on Climate Change - PRA, Financial Conduct Authority, Financial Reporting Council, and The Pension Regulator
https://www.bankofengland.co.uk/prudential-regulation/publication/2019/joint-statement-on-climate-change

FCA – Financial Conduct Authority
Climate Change and Green Finance (FS19/6 and DP18/8) Oct 2019
https://www.fca.org.uk/publications/feedback-statements/fs19-6-climate-change-and-green-finance

CMA – Competition & Markets Authority
CMA Annual Plan Consultation 2020/2021(Jan 2020)
https://www.gov.uk/government/consultations/competition-and-markets-authority-annual-plan-2020-to-2021/cma-annual-plan-consultation-202021#our-draft-priorities-for-202021.