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Turning your risk management challenges into implementable strategies

Climate Change Financial Risk: Awareness & Action

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Introduced by

Kenneth Underhill, Director, ICSR

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Introduction

- Please submit any questions by chat – they will be answered anonymously.
- We will be using the Zoom polls feature – your responses are completely anonymous.
- We will be recording the webinar – it will be available to view via our website.
- We recommend using side by side speaker view in Zoom

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Introduction

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The risks associated with climate change are increasingly clear

Governments are finally acting

Regulators are beginning to take action

Firms need to act – and some are taking very public stances

Senior management and risk functions need to be on top of climate change


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1.1 Scale of climate change

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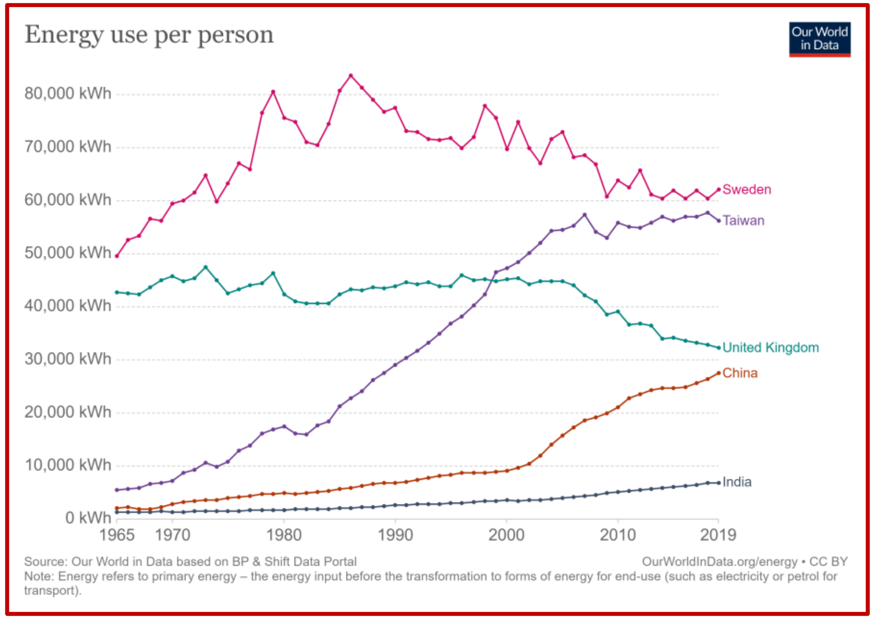
CO2 emissions are creating a greenhouse effect

- 51 billions tons of CO2 equivalent in recent years
- *Covid 19 is expected to reduce this by no more than 5% in 2020*



Sources of CO2 emissions

- Making things (cement, steel, plastic): 31%
- Plugging in (electricity): 27%
- Growing things (plants and animals): 19%
- Getting around (planes, cars, trucks, cargo ships): 16%
- Keeping warm and cool (heating, cooling, refrigeration): 7%

Solutions are needed

- Innovation – products and business processes
- Investments to finance R&D (batteries), scaling up (EV) and adoption (renewables)

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1.2 Strategic role of financial services

- Avoid stranded assets: *Risks*
  - ✓ Assets that have suffered from unanticipated or premature write-downs, devaluations, or conversion to liabilities mainly as a result of lack of readiness for climate change
- Help the economy mitigate and adapt to climate change: *Risks and opportunities:*
  - ✓ Financing the transition and low carbon economy – equity or debt
  - ✓ Underwrite physical assets – provision of credit or insurance

1.3 Stakeholders

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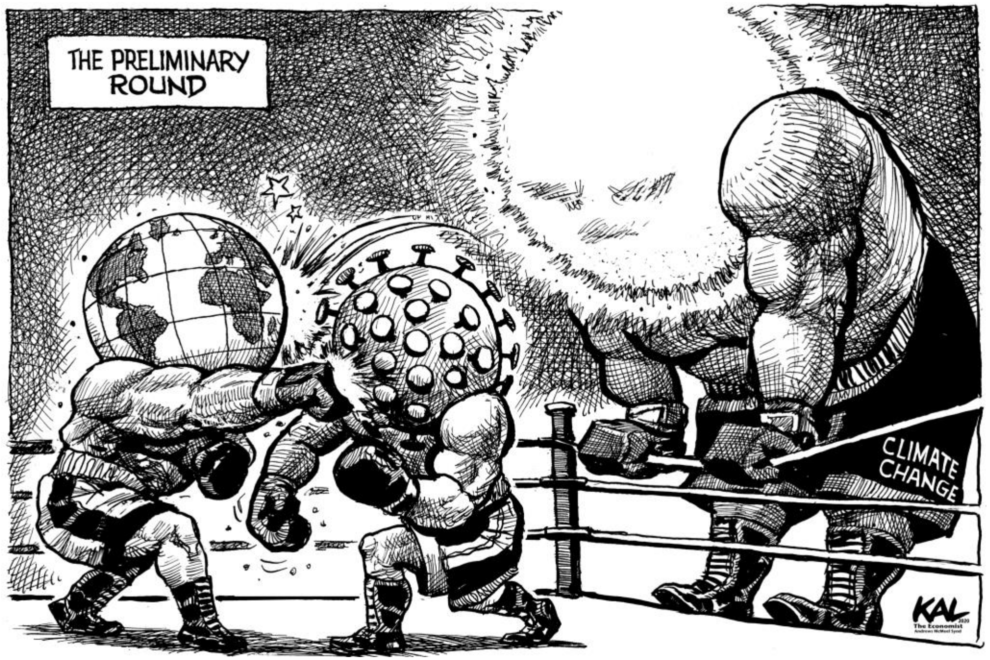
"Climate change has the potential to create significant financial risk for the firms the PRA regulates" (PRA)

"The effect of climate change on society and business is one of the defining issues of our time" (FRC)



"The combination of the weight of scientific evidence and the dynamics of the financial system suggest that, in the fullness of time, climate change will threaten financial resilience and longer term prosperity. While there is still time to act, the window of opportunity is finite and shrinking" (BoE)

"Climate change and the transition to a carbon-neutral economy will transform financial services markets and shape consumer priorities and needs" (FCA)

"Climate change is no longer simply a social responsibility issue. It is a core financial risk …" (TPR)

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2.1 Climate Change Financial Risks

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Transition risks and opportunities	Physical risks and opportunities	Liability risks
The adjustment to a low-carbon economy as a result of changes in policy and regulation, preferences (customers society), disruptive business models and technology	Impact of climate change or changes in the eco-system equilibria. They can be event driven (acute) or longer-term shifts (chronic)	Risks from climate-related litigation and legal liability arising directly (e.g. as party to a case) or indirectly (e.g. by providing cover or credit to exposed counterparties)
Examples • *Increase in equity values of (successful) green stocks* • *Reduction in equity / debt value of issuers unable to transition*	*Examples* • *Premium income shrinks when land becomes uninsurable (e.g. floods)* • *New crops become economically viable in certain areas*	*Examples* • *Litigation against fossil fuel producers* • *Impact of government duty to prevent dangerous climate change (NL)*

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2.2 New wine in an old bottle?

Climate risk ?
physical, transition and liability
risk drivers

Existing risks ✓
credit, market,
underwriting, operational

Impacts on firms, customers and markets ?

Differences

- **Far reaching in breadth and magnitude**
- **Uncertain and crystallise over extended time horizons**
- **Foreseeable nature**
- **Dependency on short term actions**

Examples

Credit Risks. The destruction of a production site by wildfire (physical risk, chronic or acute) can lead to a deterioration of the credit rating or an increase the probability of default of the company operating the site.
Market Risks. Energy efficiency regulation of commercial and residential property (transition risk, policy) can reduce the value of investments in real estate that do not comply with the requirements
Underwriting Risks. More frequent weather events such as UK floods or European windstorms (physical risk, chronic) result in higher than anticipated claims leading to re-consideration of reserves and levels of capital.

2.3 Impacts of Climate Change

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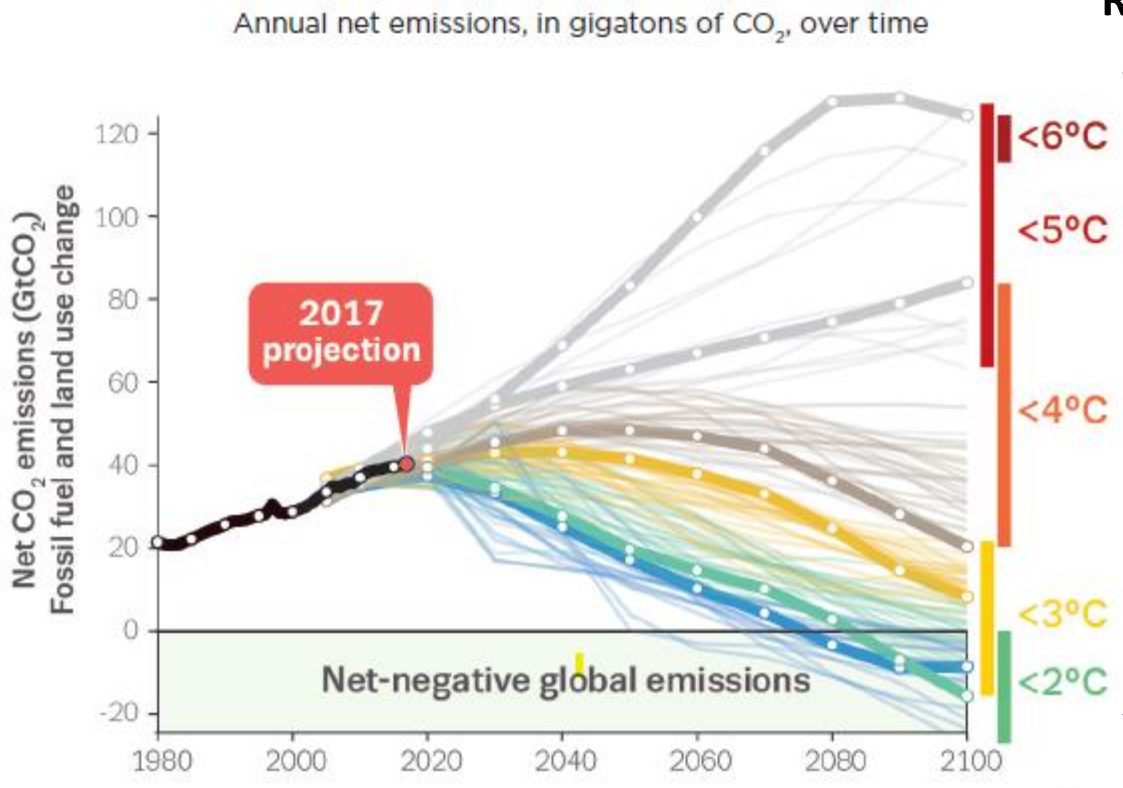

Source: Global Carbon Project (2017)

Gigaton = Billions of tons

Physical Risks

Transition Risks

- **More frequent and more severe weather events** – since 1980s frequency tripled and losses increased (from c.$10bn p.a. to c.$50bn over the past decade)
- **Interactions and correlation** – Sandy's impact related to (increasing) sea-level as well wind speed and tides; European windstorms occur in clusters
- **Affordable insurance and property values** – UK home insurance for half a million homes now considered to be at the highest risk of flooding
- **Changes in longevity and pension schemes liabilities** – range from -12% (mainly 4 years drop in life expectancy) to 5% (1.9 increase in life expectancy)
- **Changes in equity values** - green vs. brown in power extraction, transport, agriculture, energy intense sectors
- **Impact on sovereign ratings –** countries vulnerabilities and ability to respond
- **Wider impacts –** food and water security, immigration
- **Additional costs from disorderly transition** – increased credit risks in some industries

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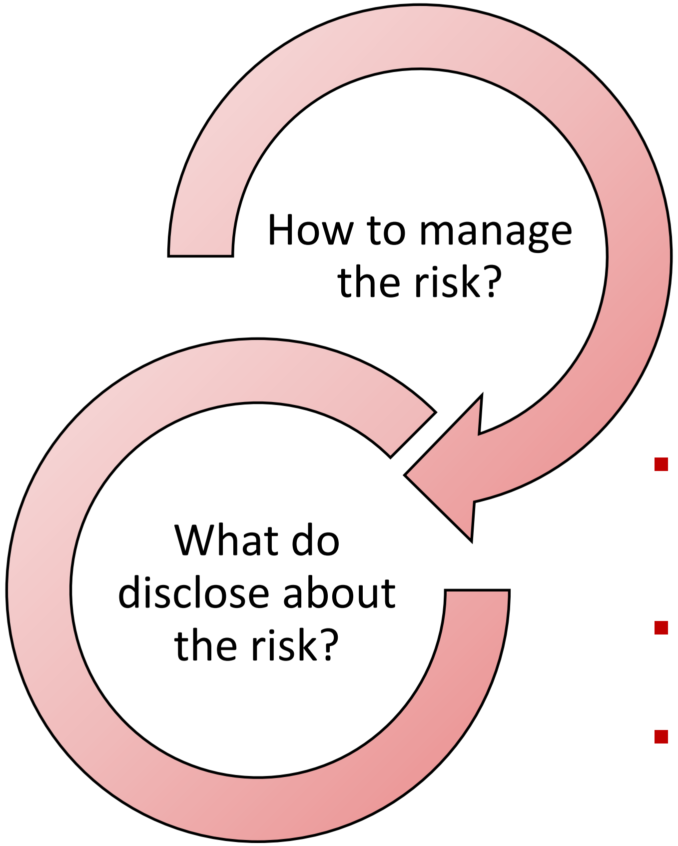
3.1 The challenge …

‘Tragedy of the Horizon’

- impacts of climate change financial risk extend beyond the horizon of most decision makers
  - ✓ business planning cycle (3 to 5 years)
  - ✓ credit rating (3 to 5 years)
  - ✓ monetary policy (2 to 3 years)
  - ✓ financial stability (about a decade)

How to address the risks?



- Regulatory focus

- Focus of Task Force for Climate Related Disclosures (TCFD)
- PRA generic approach to disclosures (initially)
- UK Government moving towards mandatory TCFD disclosures

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3.2 UK regulatory journey

2015 - 2018	2019	2020	2021
▪ PRA's "The impact of climate change on the UK insurance sector" ▪ PRA's "Transition in thinking: the impact of climate change on the UK banking sector"	▪ SS3/19 (April) sets out PRA policy expectations ▪ PRA issues Insurance Stress Test (June) with exploratory climate change scenario ▪ PRA framework for assessing physical risks (with industry; May) ▪ PRA consultation on climate change scenario for biennial assessment (Dec)	▪ PRA stress test results (June) with no quant results for climate change due to gaps in capabilities ▪ FRCF Industry Guidance chaired by FCA and PRA (June) ▪ Dear CEO Letter (July) with feedback on the implementation of SS3/19 ▪ PRA speech (Sept) potential changes to SCR as incentive to manage climate change risk	▪ YE deadline for embedding climate change financial risk ▪ Large firms participate in PRA biennial exploratory scenario (part of Insurance Stress Test)

Analysis → **Setting Policy and Expectations** → **Supervision**

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3.3 PRA expectations

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- How to address the risks?

Governance	Risk Management	Scenarios	Disclosures
Board understands the distinctive elements of climate change financial risk that affect the firm and oversee these risks within business strategy and risk appetite	*Address financial risk from climate change through existing risk frameworks and evidence this in their written policies, MI and board reports*	*They should be used to inform strategic planning, impact on overall risk profile and explore vulnerabilities of the business model*	*Risk disclosures based on TCFD, including approach to manage this risk, the integration into governance and risk management processes*

- Timeline:

"Firms should have fully embedded in their approaches to managing climate related financial risks by the end of 2021."

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3.4 PRA perspectives on progress

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Dear CEO letter (July 2020)

"Recognising the novel nature and challenges presented by climate related financial risks, we asked firms to have an implementation plan in place by October 2019 but did not set a date for full implementation. In light of observed progress in the analysis and management of climate related financial risks across the financial sector, we are now clarifying our expectations on timing."

Limited progress …

But we gave you time…

"The end of 2021 timeline will represent more than two and a half years since the publication of SS3/19 and over 2 years from the development of implementation plans and their location of responsibility for climate related financial risks to senior management function (SMF) holders."

Someone is accountable…

IST 2019 feedback

"Results from the exploratory climate scenario revealed significant gaps in the industry's capability to evaluate climate-related scenarios. These gaps are particularly acute in relation to the evaluation of climate impacts on investments, so this will need addressing before we are able to share quantitative market information. To share these results now would show an aggregation of disparate estimates that largely reflect differences in capabilities, rather than an indication of potential impacts relating to climate risks."

Some way to go…

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4.1 A strategic approach – building blocks

1. **Effective climate change leadership** → Do the Board and Senior Management have an appropriate understanding of climate change and the business exposures to provide steer and oversight?

2. **Proportionality focus** → Is there an materiality assessment to prioritise activities and spend appropriate resources on any enhancements?

3. **Build on existing risk frameworks** → Have you identified what enhancement are needed to governance, risk management, underwriting, investment management to manage climate change?

These building blocks will enable insurers to identify relevant enhancements, plan their delivery and communicate progress adequately to its Board and the PRA

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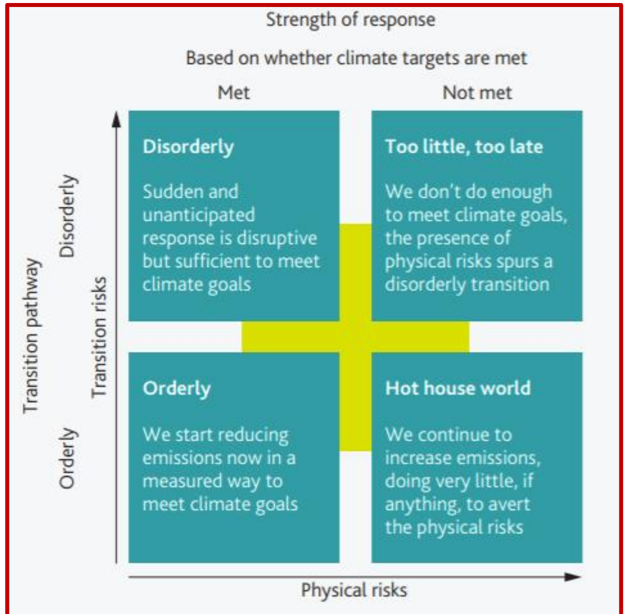
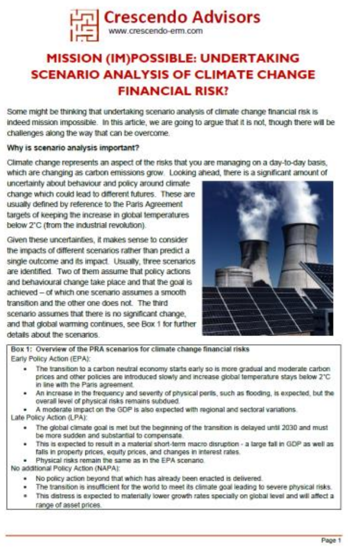
4.2. Scenario analysis

- Uncertain policy response and impacts
  - ✓ Understand the range of impacts from 2 or 3 scenarios
- Objectives
  - ✓ Size up the problem (PRA focus)
  - ✓ Inform business strategy and impact mitigation (business focus)
- Challenges
  - ✓ develop business narrative for the scenario and identify impacts
  - ✓ quantify / estimate impacts
- Channels
  - ✓ Project – PRA's biennial exploratory scenario (launch Jun 21)
  - ✓ BAU – ORSA / PRA supervisory engagement



Source: NGFS Comprehensive Report 'A call for action: Climate change as a source of financial risk'.



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MISSION (IM)POSSIBLE: UNDERTAKING SCENARIO ANALYSIS OF CLIMATE CHANGE FINANCIAL RISK?

Some might be thinking that undertaking scenario analysis of climate change financial risk is indeed mission impossible. In this article, we are going to argue that it is not, though there will be challenges along the way that can be overcome.

Why is scenario analysis important?

Climate change represents an aspect of the risks that you are managing on a day-to-day basis, which are changing as carbon emissions grow. Looking ahead, there is a significant amount of uncertainty about behaviour and policy around climate change which could lead to different futures. These are usually defined by reference to the Paris Agreement targets of keeping the increase in global temperatures below 2°C (from the industrial revolution).

Given these uncertainties, it makes sense to consider the impacts of different scenarios rather than predict a single outcome and its impact. Usually, three scenarios are identified. Two of them assume that policy actions and behavioural change take place and that the goal is achieved – of which one scenario assumes a smooth transition and the other one does not. The third scenario assumes that there is no significant change, and that global warming continues, see Box 1 for further details about the scenarios.

Box 1: Overview of the PRA scenarios for climate change financial risks

Early Policy Action (EPA):
- The transition to a carbon neutral economy starts early so is more gradual and moderate carbon prices and other policies are introduced slowly and increase global temperature stays below 2°C in line with the Paris agreement.
- An increase in the frequency and severity of physical perils, such as flooding, is expected, but the overall level of physical risks remains subdued.
- A moderate impact on the GDP is also expected with regional and sectoral variations.

Late Policy Action (LPA):
- The global climate goal is met but the beginning of the transition is delayed until 2030 and must be more sudden and substantial to compensate.
- This is expected to result in a material short-term macro disruption - a large fall in GDP as well as falls in property prices, equity prices, and changes in interest rates.
- Physical risks remain the same as in the EPA scenario.

No additional Policy Action (NAPA):
- No policy action beyond that which has already been enacted is delivered.
- The transition is insufficient for the world to meet its climate goal leading to severe physical risks.
- This distress is expected to materially lower growth rates specially on global level and will affect a range of asset prices.

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4.3 Disclosures

- Taskforce for Climate change Financial Disclosure (TCFD) proposals:

Governance	Strategy	Risk Management	Metrics & Targets
Disclose their organisations governance around climate related risks and opportunities	Disclose the actual and potential impacts of climate related risks and opportunities on the organisations businesses strategy and financial planning where material	Disclose how the organisation identifies comma accesses comma and manage climate related risks stop	Disclose their metrics and targets used to assess and manage relevant climate related risks and opportunities where material

- Change in status
  - ✓ **from** an option in PRA's SS3/19 and Dear CEO letter
  - ✓ **to** the UK approach, agreed across government departments and regulators including the PRA (Nov 20)
- PRA will perform a review of firms' published disclosures and consider if further measures are needed to improve quantity, quality and consistency

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Questions?

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6.1 About Crescendo Advisors

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- Crescendo Advisors is a boutique risk management consultancy in London with a proven history in understanding financial regulation and underlying issues such as risk appetite, risk governance, scenario analysis, enhancing ORSAs, risk policies and disclosures.
- We believe in partnering with clients to ensure that risk management fits the client's needs
- Crescendo Advisors works with a number of trusted associates with extensive experience of risk management and climate change
- Our values: ***Trust, Integrity, Knowledge and Experience***

Isaac Alfon founded Crescendo Advisors after more than 25 years in financial services, regulation and consulting. Isaac has a track record for delivering solutions that are pragmatic and support business objectives and aspirations, whilst being consistent with regulatory requirements.

He was Enterprise Risk Director at Bupa Group and had senior risk roles with Prudential and Aviva. He worked on banking and insurance regulation with the FSA and HM Treasury. Isaac has a PhD in economics from University College London and is a member of the Board of the Heart of Medway Housing Association.

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6.2 About ICSR

Compliance | Risk | Governance and Company Secretarial | Claims | Internal Audit | Operations | IT | Transformation and Programme Management

ADVISORY

RESOURCING

TRAINING

Kenneth Underhill has over 25 years in the London Insurance market and is the former General Counsel of Chubb European Group, then ACE. He was responsible for Legal, Compliance and Corporate Governance across the EMEA region. Prior to that Kenneth was a founding partner of the Commercial & Regulatory team at Reynolds Porter Chamberlain. He is the founding director of ICSR and alongside his own advisory work, manages our Talent Pool of consultants.

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