



Polling question # 1

ESG risks are material financial risks?

- A. Agree
- B. Disagree
- C. What are ESG risks?



Polling question # 2

I should be considering ESG risks within my work?

- A. Agree
- B. Disagree
- C. What are ESG risks?



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Polling question # 3

Do you think that climate change will significantly affect how the life industry operates a) before 2025?; b) before 2035?

- A. Yes
- B. No



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Addressing climate change – the route forward

Climate change agenda

There has been an increased interest in climate change related issues in recent times as seen by the Paris Agreement signed during the 21st Annual Conference of the Parties (COP21) in October 2016.

Climate change is on the global agenda and is likely to impact businesses across the globe. Inevitably, some regions will have better understanding relative to the rest.

Being a relatively new topic, it is unlikely that businesses have the required insights and expertise to address these issues.

One of the key ways of understanding climate change related issues may lie in the advancement of technology.

There is a need for actuaries to pay greater attention to climate change related issues as part of their daily work, including those in the investment space.

How can actuaries help



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Selected firms' sustainability statements

- 1) *"In 2016 engage with over 500 companies on environmental, social and governance issues."*
- 2) *"It is important that our fund managers understand these risks before they make their investment decisions, and monitor companies' ESG risk-exposure on an ongoing basis. There is growing acceptance that taking proper account of ESG risks in investment helps safeguard long-term investment returns."*
- 3) *"...committed to responsible investment, using our influence to support more sustainable businesses and ultimately a more sustainable economy and society. Our investments support the transition to a low carbon economy."*
- 4) *"Managing a sustainable business means managing a wide range of ESG issues. Every one of these areas is integral to our performance and sustainability."*
- 5) *"We routinely meet with management...to question them on...governance and sustainability matters. We advocate for reform in the markets and regulation consistent with our clients' interests in a sustainable economy."*

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What is ESGI?

ESGI is also known as Responsible investment

It is defined as “an approach to investing that aims to incorporate environmental, social and governance (ESG) factors into investment decisions, to better manage risk and generate sustainable, long-term returns.” (Principles for Responsible Investment).

Environmental factors

We have set out below our perception of the types of climate change risks with examples of each of them. These risks are only a starting point and it is expected that many physical impacts of climate change are self-reinforcing.

Physical

Damage to land, buildings, stock or infrastructure owing to physical effects of climate-related factors, such as:

- ▶ Heat waves
- ▶ Drought
- ▶ Rising sea levels
- ▶ Ocean acidification
- ▶ Storms or flooding.

Secondary

Knock-on effects of physical risks, such as:

- ▶ Falling crop yields
- ▶ Resource shortages
- ▶ Supply chain disruption
- ▶ Migration
- ▶ Political instability and conflict.

Policy

Financial impairment arising from local, national or international policy responses to climate change, such as:

- ▶ Carbon pricing or levies
- ▶ Emission caps
- ▶ Subsidy withdrawal.

Liability

Financial liabilities, such as insurance liabilities and legal claims, arising under the law of contract, tort or negligence due to other climate-related risks.

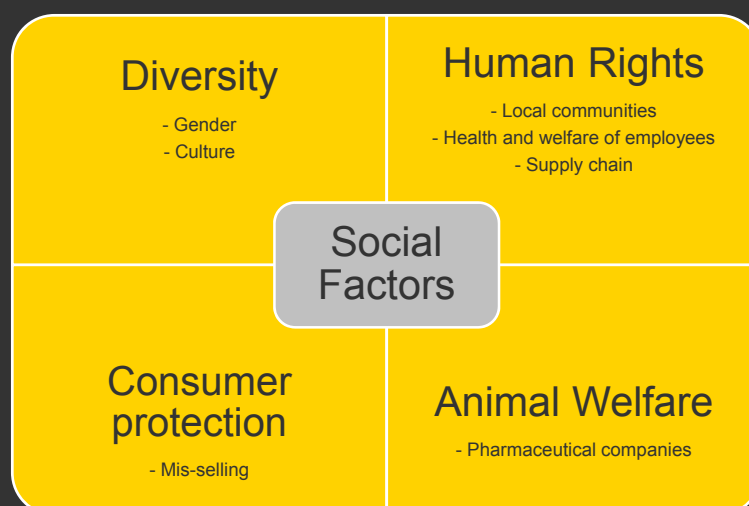
Transition

Financial losses arising from disorderly or volatile adjustments to the value of listed and unlisted securities, assets and liabilities in response to other climate-related risks.

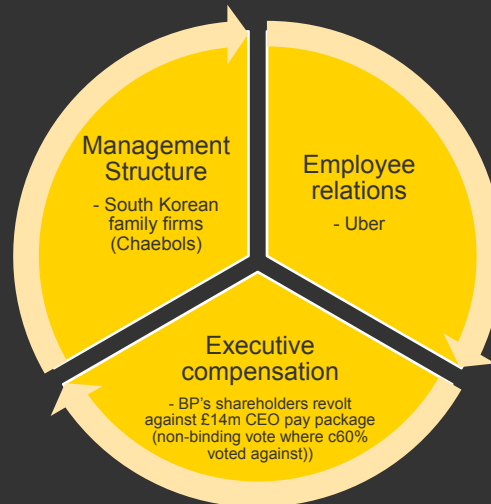
Reputational

Risks affecting businesses engaging in, or connected with, activities that some stakeholders consider to be inconsistent with addressing climate change.

Social factors



Governance factors



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What is ESGI?

Responsible investment activities are often categorised into three elements:



Invest – ESG in investment analysis

Integrating ESG factors in investment decision making and analysis; identify thematic ESG opportunities.



Avoid – Negative screening

Avoiding undesired investments altogether, through screening or reallocation for financial risk.



Engage – Active ownership

Exercising shareholder rights, and engaging with companies on ESG topics to encourage them to adapt certain behaviour.

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Waiting for climate change



The pace of change quickens

ESG related discussions kicked off long ago, dating back to 1987.

Year	Event
1987	- World Commission on Environment and Development Issues report "Our Common Future"
1991	- UN Framework Convention on Climate Change (UNFCCC) opens for signatures at Rio Earth Summit
1997	- Kyoto Protocol is adopted in December 1997, establishing for the 1 st time a global commitment to reducing carbon emissions and to fight climate change.
2005	- UN-backed Principles for Responsible Investment (PRI) are launched. - EU Emissions Trading launches.
2010	The Cancun Agreements establishes the Green Climate Fund in December 2010.
2016	Paris Agreement, which required 55 countries representing 55% of global emissions of greenhouse gases, is ratified after 10 more countries finally endorse the deal.

What are we hearing?

Climate Change: Managing Risk and Uncertainty

Policy Briefing

the guardian

Carney warns of risks from climate change 'tragedy of the horizon'

Bank of England governor tells Lloyd's insurers that 'challenges currently posed by climate change pale in significance compared with what might come'

Guardian sustainable business

Climate change and resource scarcity may wipe out pensions industry
Jo Confino

New report from Anglia Ruskin University shows that actuaries, charged with risk management in the financial sector, have ignored the greatest risk of all time

Donald J. Trump

The concept of global warming was created by and for the Chinese in order to make U.S. manufacturing non-competitive.

20,385 11,642

10/11/2017 10:11 AM

China and California sign deal to work on climate change without Trump

Secretary Jerry Brown says president's decision to pull the US out of the Paris agreement will be only a temporary setback.

CNBC

Obama unveils clean energy plan, amid legal threats

10/11/2017 10:11 AM

The Telegraph

Paris climate deal to ignite a \$90 trillion energy revolution

The old fossil order is in borrowed time as China and even India join the drive for dramatic cuts in CO2 emissions

Investors move to limit impact of climate change on their portfolios

What are the drivers for financial services firms?

- ESG and performance – how do they compare?



INDEX RISK AND RETURN CHARACTERISTICS (NOV 30, 2009 – MAY 31, 2017)

	Beta	Tracking Error (%)	Turnover (%) ¹	ANNUALIZED STD DEV (%) ²			SHARPE RATIO ^{2,3}			Since Nov 30, 2009 (%)
				3 Yr	5 Yr	10 Yr	3 Yr	5 Yr	10 Yr	
MSCI ACWI ESG Universal	0.99	1.01	13.72	10.91	10.20	na	0.51	1.13	na	0.67
MSCI ACWI	1.00	0.00	2.74	10.81	10.13	na	0.50	1.10	na	0.65

¹ Last 12 months

² Based on monthly net returns data

³ Based on ICE LIBOR 1M

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What are the drivers for financial services firms? (cont'd)



Pension scheme trustee's guidance



Diversification of return / green investment



Corporate governance...

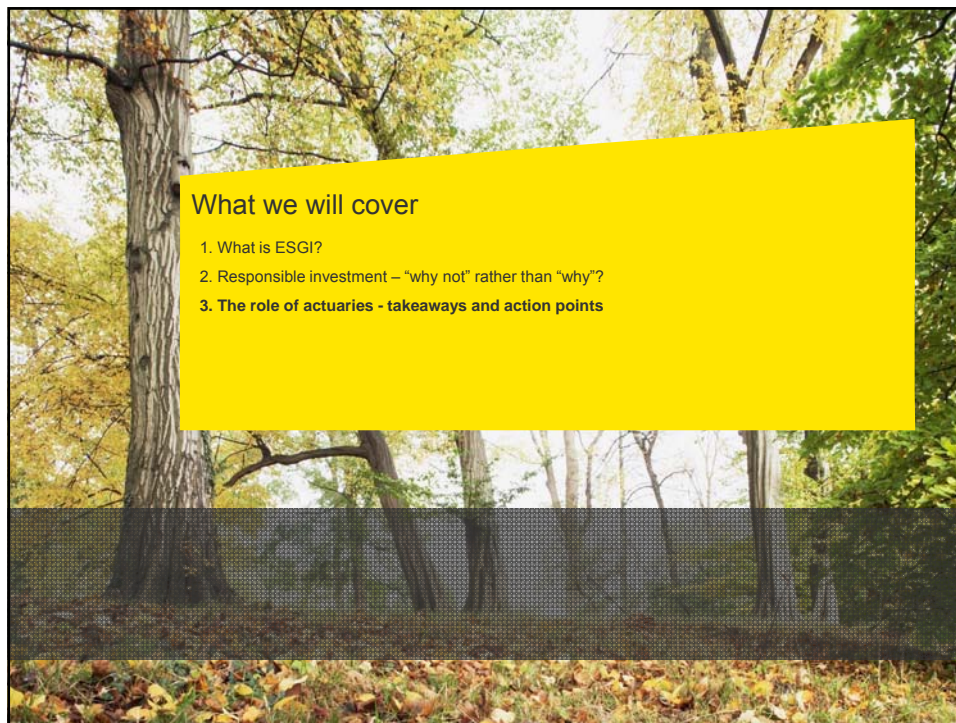


Risk of inaction - stranded assets



Marketing / brand strengthening

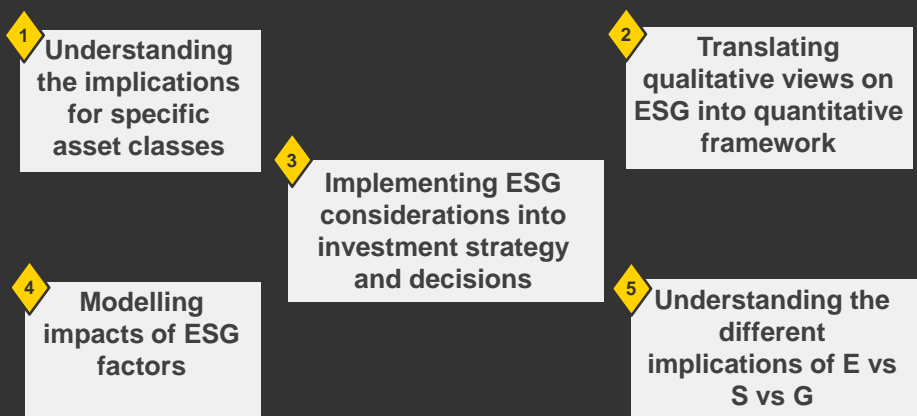
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IFoA initiatives

- ▶ IFoA Risk Bulletin
- ▶ ESG Investment Working Party
- ▶ Practical guide for ESG
- ▶ PRI Network supporter
- ▶ ESGI as part of exam curriculum

ESG – what is the actuarial angle?



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What should actuaries be aware of?

Understanding of responsible investment

- ▶ Related concepts and terminology, including sustainability, SRI, ethical investment and impact investment; differing emphases on financial and environmental/social/ethical objectives
- ▶ Importance of long-term perspective, but relevant over short-term too
- ▶ Relevant at all stages of the investment process: asset allocation, manager selection and monitoring, stock selection and monitoring, exercise of ownership rights, reporting
- ▶ Example approaches: integration, negative screening, positive screening, ESG-related indices (including tilting), themed investments. Note: all asset classes, not just equities
- ▶ Climate change as an environmental and social factor, including distinction between physical, transition and liability risks, and concept of stranded assets
- ▶ Corporate governance codes, complemented by stewardship codes

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What should actuaries be aware of?

Legislative requirements and regulatory expectations

- ▶ Fiduciary duty of pension scheme trustees (eg Law Commission guidance in the UK)
- ▶ UK Pensions Regulator's guidance for DB and DC schemes
- ▶ Amended EU directives: IORP and shareholder rights
- ▶ Task Force on Climate-Related Financial Disclosures

What questions do you have?



Key takeaways

- ▶ Actuaries are uniquely placed to understand and manage risks
- ▶ Work to harmonise the information available in the marketplace
- ▶ Consider ESG risks in your investment decisions
- ▶ This cannot be ignored and should be incorporated into our standard practice

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Thank you

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