

Climate change risk management

Expertise and analysis from the Government Actuary's Department (GAD) can help government manage climate change-related financial risks. We are building networks across government to look at how climate scenario analysis can be used as a risk management tool.

GAD and other organisations recognise the need for continued work on risk management around climate change. At the department's recent Forum for Public Actuaries event, the Prudential Regulation Authority and the Pensions Regulator spoke about how they're taking steps to ensure insurance companies, financial institutions and pension funds manage climate change risks appropriately.

Scenario analysis

Scenario analysis is a helpful tool to highlight these risks even where they are highly uncertain, such as the exact nature of the risks from the physical impacts of a changing climate and the route we will take to transition to a low carbon economy. It entails constructing possible narratives for how the future might unfold and assessing their impacts on the risks facing an organisation or government.

Actuarial expertise

GAD's lead actuary in climate change issues, Rich Haines said: "We've been exploring a range of scenarios, including pathways for global actions expected to limit global warming to 1.5 degrees above pre-industrial levels. We've also looked at a pathway in line with currently announced policies of governments around the world, expected to lead to global warming of more like 3 degrees.

"These scenarios have very different implications for how the economy may evolve, and how global temperature rises, and carbon use reduction may impact on a range of factors which impact on financial risk, such as asset returns and life expectancy."

Improving understanding

As GAD marks its centenary year, we reflect on our achievements over the past 100 years and look forward to the increasing range of areas where we use our expertise to assist our clients. This includes climate change where there are financial (and other) risks to individuals, businesses and government and uncertainty over possible outcomes.

Considering implications from different climate scenarios can break down seemingly intractable problems into more focused considerations and help improve understanding. This can help decision makers consider the possible range of impacts, build resilience and respond quickly to changing

circumstances. We expect this sort of analysis will be helpful to large asset holders such as pension funds and financial institutions, but also to government departments responsible for managing risks to the country's future finances.